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MEDICAL HISTORY

SELECTIONS FROM THE MEDICAL WRITINGS AND SAYINGS OF DR. OLIVER WENDELL HOLMES*

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OBVIOUSLY no writer or speaker can be considered wholly successful, unless he has been able by his writings or his sayings definitely to attract attention, and also to hold it. Now Dr. Holmes, as is well recognized, possessed this power to an extraordinary degree; and he also had the ability to cause people to assume just the state of mind he wished them to assume. He could, if he chose to do so, make their whole beings vibrate with patriotic fervor, as when they were reading the *"Old Ironsides,"* or one of his stirring articles of the time of the Civil War; or he could cause them to go back with him to the quiet old New England days, and vividly picture to themselves the energetic old Deacon building his *"One Hoss Shay"*; or make them experience with him the emotional sentiment in *"The Last Leaf"*, or the deep poetic feeling in *"The Chambered Nautilus"*; and even cause them to weep with him on reading some of his poetic prose or his poetry; or—and here he was at his best—he could make them laugh merrily with him in his playfulness or wit, which was, and always will be, so closely associated with his name. While many of his writings† and sayings, were on serious subjects and were seriously treated, they were always full of life, and when the opportunity allowed him to do so,—much to the enjoyment of everybody who read or heard his words—he let loose upon the subject in hand a flood of wit and humor of such brilliancy that his writings in this respect have never been surpassed, and it has been said, that no conversationalist since the days of Sydney Smith, has been able to equal him.

Although his writings are readily accessible, many of his stories and sayings, which have a direct or indirect bearing on medicine, are scattered here and there in books and pamphlets. It is the object of this paper to bring together a few selections from his lighter medical writings, and incidentally to record some of his sayings or humorous comments, which now exist only in the memories of those who heard them from his own lips. These spoken words of his were for the most part associated with his lectures on Anatomy at the Harvard Medical School.

Dr. Holmes was born August 29, 1809, in Cambridge, Mass. His life, especially after he started on his literary career, was one of great activity and of signal successes in different directions, the result largely of the persistent exercise, through his writings and sayings, of his brilliant intellect. After graduating from Harvard College in the well-remembered class of '29, and, having studied law for a year or so,—only then to give it up—, he finally decided to take up the study of medicine; and in 1833 he went to Europe, where in Paris and other large centres, he attended medical lectures and clinics, and visited the various hospitals. On his return to America he received (in 1836) the degree of M.D. from Harvard College. He was made Professor of Anatomy and Physiology in Dartmouth College in 1839, and held the position for two years. In 1847 he was made Professor of these same subjects in the Harvard Medical School. This title was changed in 1871 to that of Parkman Professor of Anatomy, and a separate department was made for Physiology. Although most of his work was in a purely literary direction, he retained his position in the School until near the end of his life,—he died October 7, 1894—and he always had a keen interest in everything connected with Medicine. His duties in the School were at one time so numerous and varied as to lead him to say: "Instead of filling a *chair* at the University, I really occupy a *settee!*"

On general principles, it would seem difficult for any lecturer to make such a subject as human anatomy continuously interesting; and yet Dr. Holmes had the secret of so holding the attention of his hearers that one's ears were always ready to catch anything he had to say, and one's eyes closely to observe whatever he had

*Read at the meeting of the Boston Medical History Club, November 18, 1927.

†He frequently wrote on medical subjects, and he made many valuable contributions to medicine, the most conspicuous of which being an article (first printed in 1843) in which he first called the attention of the world to the contagiousness of puerperal fever.

to show. Descriptions of anatomical parts were always clean-cut and accurate, no matter what part of the body was being talked about, while here and there, interesting stories and allusions were interjected, often bristling with wit and humor, and helping effectively to hold the students' attention and to fix in his memory the different points which were made in the lecture. Dr. Holmes repeated many of these stories and sayings year after year; and, at times, he would refer to them as being quite as essential to the lectures as were the descriptions of the different anatomical parts.

Here are recorded a very few of these sayings of his, with, however, the realization that they lose a good deal in being transferred from their proper environment into cold print, but also with the hope that they do not lose too much.*

Speaking of the deltoid muscle, for instance, Dr. Holmes would say:—"Now, gentlemen, we are about to consider the anatomy of the deltoid, —that powerful muscle which comes down on the shoulder *like a constable's fist!*"; or he would call atttention to the structure of the pectoralis minor muscle, as being less fibrous and more tender than that of the overlying pectoralis major. And then he would add "And don't forget, gentlemen,—next time you are carving the turkey—to remember this fact, and to *reserve the pectoralis minor for your favorite girl!*"

In speaking of the coronary arteries which supply the heart-substance with blood, he said, "This arrangement of the heart-muscle getting some of the blood which passes through it, for its own nourishment, reminds me of the analogous situation in the case of the bank cashier! All the moneys of the bank have to pass through the cashier's hands; but, the cashier, in order to live, must receive some of that money, as his salary."

He compared the terminations of the Fallopian tubes with the bedraggled ends of a poor woman's shawl.

In speaking of anatomical pictures he always referred to "those beautiful plates of Albinus", and he often described them in great detail, never omitting to speak of the lovely figure of a nude woman, standing in a most graceful attitude, "with a smile on her face, and an ovary in each hand, as if she were saying, like the mother of the Gracchi, "and these are *my* jewels!"

In the course of his demonstration of the female pelvis, he, at one stage held it aloft, and pointing to the pubic arch, announced with dignified emphasis: *'Gentlemen! this is the arch under which every youthful candidate for immortality has to pass!"*

His quickness was proverbial. One day at a lecture he dropped his eye-glasses into the abdominal cavity of the cadaver. One of the students laughed aloud. This annoyed him somewhat, and he hastily retorted, *"Well, I wish you had to use glasses!"* Then, instantly realizing that this was not kindly of him, he quickly added: "Of course, I mean that I hope you will *live* long enough"! Once, in calling the names of students for recitation, an unusually large number of men replied: "Not prepared, sir!" Finally, in despair, he called the name of "Holmes", being that of one of the students, and, getting the same response, he good-naturedly retorted: *"I'm ashamed of the family!"*

There was a time, over fifty years ago, when certain students from the Provinces were allowed special opportunities of attending certain lectures at the School, in order to round out, as it were, their medical instruction obtained mostly elsewhere. On one occasion a particularly rough lot of such students attended the anatomical lectures, and, before the professor appeared, made much disturbance. One of them actually tossed on the floor, near the cadaver, the two legs of a chicken. Holmes, as he entered the amphitheatre, saw one of these legs, picked it up, and at once exclaimed, as if in explanation: "Gentlemen, *it is with the human pedal extremity that we are concerned to-day!"* Later, noticing for the first time the other chicken leg, he held it up and instantly exclaimed, quoting Young: *Insatiate archer! Could not one suffice?"*

Once a student, about to be examined by Dr. Holmes was asked his name, and the student gave it. Thereupon Dr. Holmes asked him if he was related to an apothecary, who bore the same name. "Yes," said the student "he is my father!" "Ah yes!" replied Dr. Holmes jokingly, *"I can see his liniments in your face!"*

At one stage during his demonstrations of the anatomy of the eye, and of the structures connected with it, he spoke essentially as follows: "By the time that American anatomists got seriously to work with their dissecting, apparently every anatomical structure had received its name; but it remained for Dr. Horner of Philadelphia to be the first one to discover, and describe, the muscle now called the 'Tensor Tarsi' or 'Horner's Muscle'! This is a very small thin muscle at the inner side of the orbit, and is only a few lines in length. But, small though it be, *over it* waves the American flag"!

It has been said that his brother, John Holmes, was equally quick and witty. One day the doctor was telling his brother that a man is said to grow shorter as he grows older, on account of the vertebrae of the spinal column coming nearer together. Hearing this, John Holmes said—"If that's so, what a funny sight it must have been to see Methuselah walking down the street with his shoe-strings flying in his face!"

In speaking at one time of Dr. Henry J. Bigelow, Dr. Holmes said:—"There was once too much of me—in other words I had on my shoul-

*It is of course impossible in recording these "sayings" to quote Dr. Holmes exactly, but the attempt has been made to express his meaning as nearly as possible in his own words.

der a small fatty tumor—and this Dr. Bigelow removed. The scar is still there;—H. J. B.—his mark!" He had a great admiration for Dr. Bigleow, as a man and as a surgeon. He recognized Dr. Bigelow's marked originality, for he wrote of him that "he took life at first-hand and not filtered through alphabets"; but to this he added that, when Dr. Bigelow cared to look up a subject, he could "get what he wanted out of a book as dextrously, as neatly, as quickly as a rodent will get the meat of a nut out of its shell."

At one time a young doctor was walking with Dr. Holmes, and when they passed this young doctor's office a patient was seen sitting at the window of the waiting room. The two doctors walked together a little distance further, and finally the younger one, speaking of the patient he had seen, excused himself on that ground. "Oh," said Dr. Holmes good-humoredly, "*the trap has sprung, has it?*"

On one occasion two young doctors called on Dr. Holmes in reference to his sitting for his bust. He spoke of having already done so some years previously, but he stated that, before the bust was finished, the sculptor died; and, then, he added "*I suppose my features were too much for him!*"

Dr. David W. Cheever, formerly Professor of Surgery in the Harvard Medical School, who in earlier years had been Demonstrator of Anatomy under Dr. Holmes, wrote the following about his former chief: "As a lecturer he was accurate, punctual, precise, unvarying in patience over detail, and though not an original anatomist in the sense of a discoverer, yet a most exact descriptive lecturer; while the wealth of illustrations, comparison, and simile he used was unequaled. Hence his charm; you received information, and you were amused at the same time. He was always simple and rudimentary in his instruction. His flights of fancy never shot over his hearers' heads. 'Iteration and reiteration' was his favorite motto in teaching. 'These, gentlemen,' he said, on one occasion, pointing out the lower portion of the pelvic bones, 'are the tuberosities of the ischia, on which man was designed to sit and survey the works of Creation.' But if witty, he could always be serious and pathetic; and he possessed the high power of holding and controlling his rough auditors. . . .

"And how he loved Anatomy! as a mother her child. He was never tired, always fresh, always eager in learning and teaching it. In earnest himself, enthusiastic, and of a happy temperament, he shed the glow of his ardent spirit over his followers, and gave to me, his demonstrator and assistant for eight years, some of the most attractive and happy hours of my life."*

Dr. Thomas Dwight, who succeeded Dr. Holmes as Professor of Anatomy at Harvard, wrote of him as follows:

"To make head against these odds he did his utmost to adopt a sprightly manner, and let no opportunity for a jest escape him. These would be received with quiet appreciation by the lower benches, and with uproarious demonstrations from the 'mountain,' where, as in the French Assembly of the Revolution, the noisiest spirits congregated. He gave his imagination full play in comparisons often charming and always quaint. None but Holmes could have compared the microscopical coiled tube of the sweat gland to a fairy's intestine. Medical readers will appreciate the aptness of likening the mesentery to the shirt ruffles of a preceding generation, which from a short line of attachment expanded into yards of complicated folds. He has compared the fibres connecting the two symmetrical halves of the brain to the band uniting the Siamese twins". . . .†

Many of his sayings, while not strictly medical, have still a bearing in that direction. He was always interested in questions of inheritance, and the following words of his leave no doubt as to his opinion:—

"Every man is an omnibus, *in which all his ancestors are seated!*"

In a Memorial Address on Charles Francis Adams, Nov. 17, 1915, Henry Cabot Lodge, referring to heredity, says that "We no longer smile at Dr. Holmes's remark that a man's education should begin one hundred and fifty years before his birth, for the saying involves a great scientific truth which Dr. Holmes foresaw, as he did much else for which he did not receive due credit, in the wide regions of thought and speculation."

The following two stories about Dr. Holmes, though non-medical, seem to be not inappropriate for insertion here. They were kindly furnished by Dr. F. C. Shattuck, and are given in Dr. Shattuck's own words.

(1) "The late Colonel Henry Lee was third or fourth cousin of Dr. Oliver Wendell Holmes, Mrs. Holmes I think a first cousin. Mr. Lee and Dr. Holmes used to attend the little church at Beverly Farms Sunday mornings, and after the service take a walk. On one occasion Mr. Lee stopped at Dr. Holmes's house. The doctor showed him a little box estimated to contain a million grains of sand, a trilobite and a scarabaeus, remarking,—'Harry, I keep these by me always. I am so vain, you know, that I need something to remind me of my own littleness.'"

(2) "Toward the end of his life I was walking one day with Dr. Holmes at Beverly Farms. He, of course, did the talking, I, of course, was the listener. He was speaking of the large number of letters which he received from all about, and then interjected,—'But I must not talk about these things and myself. The truth

*Harvard Graduates' Magazine, Vol. III, No. 10, December, 1894.

†Scribner's Magazine, Vol. XVII, No. 1, January, 1895.

is that flattery is to an old man what oats are to a horse.' "

POETRY

Dr. Holmes wrote many poems on medical subjects. In one of them called *"The Morning Visit"* he gives his idea, through the following lines, as to the attitude of certain physicians, in reference to professional visiting:—

"'T is a small matter in your neighbor's case,
"To charge your fee for showing him your face;
"You skip upstairs, inquire, inspect, and touch,
"Prescribe, take leave, and off to twenty such."

Further, and more seriously, he formulates, in rhyme, what he considers to be the proper behaviour in the sick room, speaks of the use of drugs and other methods of treatment, and also emphasizes the need of quiet, delicacy, kindness, etc., and then continues as follows:—

"And last, not least, in each perplexing case,
"Learn the sweet magic of a *cheerful face;*
"Not always smiling, but at least serene,
"When grief and anguish cloud the anxious scene.
"Each look, each movement, every word and tone,
"Should tell your patient you are all his own;
"Not the mere artist, purchased to attend,
"But the warm, ready, self-forgetting friend,
"Whose genial visit in itself combines
"The best of cordials, tonics, anodynes."

Here and there, throughout his non-medical poems there are frequent medical or anatomical allusions. In the *Music Grinders* are the following lines:—

"But hark! the air again is still,
"The music all is ground,
"And silence, like a poultice, comes
"To heal the blows of sound;"

In *Nux Postcoenatica*, he writes:—

"Not so,—I said,—my temporal bones are showing pretty clear,
"It's time to stop,—just look and see that hair above this ear:
"My golden days are more than spent,—and what is very strange,
"If these are real[ly] silver hairs, I'm getting lots of change"

and later in the same poem:—

"I tell you what, philosopher, if all the longest heads
"That ever knocked their sinciputs in stretching on their beds"

and still again:—

"And as for all the "patronage" of all the clowns and boors
"That squint their little narrow eyes at any freak of yours,
"Do leave them to your prosier friends,—such fellows ought to die
"When rhubarb is so very scare and ipecac so high!"

Among the *"Verses For After Dinner,"* read at the Phi Beta Kappa Society, 1844, are the following lines:—

"There's a slice near the PICKEREL'S Pectoral fins,
"Where the *thorax* leaves off and the *venter* begins;
"Which his brother, survivor of fish-hooks and lines,
"Though fond of his family, never declines".

In the *Stethoscope Song,* he tells in verse, about a young [Boston] doctor, who had studied in Paris, and who bought a stethoscope,—and he described how into this instrument a spider crawled and spun his web, and how later two buzzing flies fell in. Confusing noises in the stethoscope led to a false diagnosis, wrong treatment and disastrous results.

One of Holmes's poems was entitled: *"The Mysterious Illness"*. One time, in ancient days, young Lucius was a patient, and to diagnose his illness many physicians tried, but all in vain! Finally, one more doctor was summoned, who by clever means discovered the real cause—It was *love,* on the part of young Lucius, for the beautiful lady Hermia! The physician who made this diagnosis was well fitted to practice. His name was Galen!

A poem written for the Meeting of the *National Sanitary Association,* (1860) has many verses. The last one is:—

"And lo! the starry folds reveal
"The blazoned truth we hold so dear:
"To guard is better than to heal,—
"The shield is nobler than the spear!"

Thus, nearly seventy years ago, he emphasized the value of the preventive treatment of disease!

In a modernized version of *"The Archbishop and Gil Blas"* Dr. Holmes jokingly enumerates the physical infirmities of old age.

In *"Rip Van Winkle, M.D."* ("An After-Dinner Prescription, taken by the *Massachusetts Medical Society,* at their Meeting, May 25, 1870"), he tells, in rhyme, about a grand-son of old "Rip", who, after making a poor success at a number of occupations, was induced to study medicine.

"Months grew to years; at last he counted three,
"And Rip Van Winkle found himself M.D.
"Illustrous title! in a gilded frame
"He set the sheepskin with his Latin name,
"*Ripum, Van Winklum, Quem* we—*scimus*—know
"*Idoneum esse*—to do so and so—.
"He hired an office; soon its walls displayed
"His new diploma and his stock in trade,
"A mighty arsenal to subdue disease,
"Of various names, whereof I mention these:"

Dr. Holmes then describes the supplies of instruments and drugs, with which Rip provided himself, and, then come these verses:

"The surest foot may chance at last to slip,
"And so at length it proved to Dr. Rip.
"One full-sized bottle stood upon a shelf
"Which held the medicine that he took himself;
"Whate'er the reason, it must be confessed
"He filled that bottle oftener than the rest;
"What drug it held I don't presume to know—
"The gilded label said "Elixir Pro."

"One day the Doctor found the bottle full
"And being thirsty, took a vigorous pull,

"Put back the "Elixir" where 't was always found,
"And had old Dobbin saddled and brought round.
"—You know those old-time rhubarb-colored nags
"That carried Doctors and their saddle-bags;
"Sagacious beasts! they stopped at every place
"Where blinds were shut—knew every patient's case—
"Looked up and thought—the baby's in a fit,—
"*That* won't last long—he'll soon be through with it;
"But shook their heads before the knockered door
"Where some old lady told the story o'er
"Whose endless stream of tribulation flows
"For gastric griefs and peristaltic woes".

Dr. Holmes then proceeds to tell something of Rip's personal experiences, and describes how he fell off his horse one day, and was deserted by poor old "Dobbin". He slept, where he lay, for so long a time, that he was thought to be dead.

Then the people gave utterance to their knowledge as to his habits of drinking, and, incidentally, Dr. Holmes, musing, asks:—

"Why can't a fellow hear the fine things said
"About a fellow when a fellow's dead?"

Rip was finally waked by the booming of the guns at the end of the Civil War. Things had happened during his thirty years of sleep. He finally came back to his town,—

"Had his old sign regilded, and began
"To practice physic on the same old plan.
"Some weeks went by—it was not long to wait—
"And "please to call" grew frequent on the slate.
"He had, in fact, an ancient, mildewed air,
"A long gray beard, a plenteous lack of hair,
"The musty look that always recommends
"Your good old Doctor to his ailing friends".

The poem continues to tell about his activities; but—

"The town was healthy; for a month or two
"He gave the sexton little work to do".

The poem then goes on to describe an epidemic of sickness, which subsequently broke out, in which a number of Rip's patients died;—and, incidentally, tells about a doctor's consultation. But finally Rip, in despair, takes another draught of "Elixir Pro", and goes to sleep in the barn, leaving orders to be *wakened once a year.*

Then Dr. Holmes, referring to this very Annual Meeting of the Massachusetts Medical Society, at which he was reciting this poem, ends as follows:—

"And so it is, as every year comes round,
"Old Rip Van Winkle here is always found.
"You'll quickly know him by his mildewed air,
"The hayseed sprinkled through his scanty hair.
"Where is his seat? He moves it every year;
"But look, you'll find him,—he is always here,—
"Perhaps you'll track him by a whiff you know—
"A certain flavor of "Elixir Pro!"

He then proposes a

"Health to the mighty sleeper,—long live he!
"Our brother Rip, M.M. S.S. M.D.!"

PROSE

But Dr. Holmes, as is well known, wrote many essays on medical subjects, and he often presented them in the form of lectures or addresses, for his services in such directions were always in great demand. His address, before the Massachusetts Medical Society at its Annual Meeting, May 30th, 1860, and entitled *"Currents and Counter-Currents in Medical Sciences"* was full of interesting information, as well as of pathos and humor and it must have given rise to wide-spread interest at the time it was delivered, which was just before the Civil War. The opening of this address is so beautifully expressed and conveys so much sentiment that I cannot resist the temptation of quoting it. It reads as follows:—

"Our Annual Meeting never fails to teach us at least one lesson. The art whose province it is to heal and to save cannot protect its own ranks from the inroads of disease and the waste of the Destroyer."

"Seventeen of our associates have been taken from us since our last Anniversary. Most of them followed their calling in the villages or towns that lie among the hills or along the inland streams. Only those who have lived the kindly, mutually dependent life of the country, can tell how near the physician who is the main reliance in sickness of all the people among whom he labors, how they value him while living, how they cherish his memory when dead. For these friends of ours who have gone before, there is now no more toil, they start from their slumbers no more at the cry of pain; they sally forth no more into the storm; they ride no longer over the lonely roads that knew them so well; their wheels are rusting on their axles or rolling with other burdens; their watchful eyes are closed to all the sorrows they lived to soothe. Not one of these was famous in the great world; some were almost unknown beyond their own immediate circle. But they have left behind them that loving remembrance which is better than fame, and if their epitaphs are chiseled briefly in stone, they are written at full length on living tablets in a thousand homes to which they carried their ever-welcome aid and sympathy."

"Let us hope that our dead have at last found that rest which neither summer nor winter, nor day nor night, had granted to their unending earthly labor!"

Later in this address he refers in the following language to the condition known as "invalidism." "Again, invalidism is the normal state of many organizations. It can be changed to disease, but never to absolute health by medical appliances. There are many ladies, ancient and recent, who are perpetually taking remedies for irremediable pains and aches. They *ought* to have headaches and back-aches and stomach-

aches; they are not well if they do not have them."

As is well known, Dr. Holmes, was very skeptical as to the value of most of the drugs, contained in the Pharmacopeia *of that day;* but in his condemnation he made certain exceptions. He said: "Throw out opium, which the Creator himself seems to prescribe, for we often see the scarlet poppy growing in the cornfield, as if it were foreseen that wherever there is hunger to be fed there must always be pain to be soothed; throw out a few specifics* which our art did not discover, and is hardly needed to apply; throw out wine, which is food, and the vapors which produce the miracle of Anaesthesia, and I firmly believe that if the whole materia medica, as now used, could be sunk to the bottom of the sea, it would be all the better for mankind,—and all the worse for the fishes."

In a lecture on *"The Medical Profession in Massachusetts"* delivered before the Lowell Institute, Jan. 29, 1869, Dr. Holmes thus referred to the discovery of the anaesthetic properties of Ether.

"A little before the first half of this century was completed, in the autumn of 1846, the great discovery went forth from the Massachusetts General Hospital, which repaid the debt of America to the Science of the Old World, and gave immortality to the place of its origin in the memory of the heart of mankind. The production of temporary insensibility at will—*tuto, cito, jucunde,* safely, quickly, pleasantly—is one of those triumphs over the infirmities of our mortal condition which changes the aspect of life ever afterwards. Rhetoric can add nothing to its glory; gratitude, and the pride permitted to human weakness, that our Bethlehem should be chosen as the birthplace of this new embodiment of the divine mercy, are all we can yet find room for."†

The Valedictory Address, delivered to the Graduating Class of the Bellevue Hospital, March 2, 1871, and entitled *"The Young Practitioner",* is full of Dr. Holmes's wise suggestions, with, here and there, a lighter touch! Here are a few extracts at the beginning of the address, but, by those who are about to begin the practice of medicine, the whole of it should be carefully read, as most of the advice is as valuable today as it was, when it was written, over fifty years ago:—

"The occasion which calls us together reminds us not a little of that other ceremony which unites a man and a woman for life. The banns have already been pronounced which have wedded our young friends to the profession of their choice. It remains only to address to them some friendly words of cheering counsel, and to bestow upon them the parting benediction."

"This is not the time for rhetorical display or ambitious eloquence. We must forget ourselves, and think only of them. To us it is an occasion; to them it is an epoch."

And then: "I speak more directly to you,—gentlemen of the graduating class. The days of your education, as pupils of trained instructors, are over. Your first harvest is all garnered. Henceforth you are the sowers as well as reapers, and your field is the world. How does your knowledge stand to-day? What have you gained as a permanent possession?"

. . . "Your acquaintance with some of the accessory branches is probably greater now than it will be in a year from now,—much greater than it will be ten years from now. The progress of knowledge, it may be feared, or hoped, will have outrun the text-books in which you studied these branches. Chemistry, for instance, is very apt to spoil on one's hands. 'Nous avons changé tout cela' might serve as the standing motto of many of our manuals. Science is a great traveller, and wears her shoes out pretty fast, as might be expected." And then how well expressed is this:—"Your present plethora of acquirements will soon cure itself. Knowledge that is not wanted dies out like the eyes of the fishes of the Mammoth Cave." And likewise this:—

"The young man knows the rules, but the old man knows the exceptions. The young man knows his patient, but the old man knows also his patient's family, dead and alive, up and down for generations. He can tell beforehand what disease their unborn children will be subject to, what they will die of if they live long enough, and whether they had better live at all, or remain unrealized possibilities, as belonging to a stock not worth being perpetuated. The young man feels uneasy if he is not continually doing something to stir up his patient's internal arrangements. The old man takes things more quietly, and is much more willing to let well enough alone. All these superiorities, if such they are, you must wait for time to bring you. In the meanwhile—the young man's senses are quicker than those of his older rival. His education in all the accessory branches is more recent, and therefore nearer the existing condition of knowledge. He finds it easier than his seniors to accept the improvements which every year is bringing forward. New ideas build up their nests in young men's brains. 'Revolutions are not made by men in spectacles,' as I once

*Among these specifics may be mentioned *Cinchona, Mercury, Arsenic, Colchicum, Iodine, Sulphur,* and a few others. The above words of Dr. Holmes are given at some length, for the reason that his statement concerning the materia medica, frequently quoted in various publications, has in most, if not in all, cases been quoted wrongly, for nothing has been said therein about the exceptions specified by Dr. Holmes.

†This rather serious bit of eloquence is here introduced to give a little temporary turn to the main current of this article. Incidentally, it will probably be all the more interesting reading, when we realize the fact, not usually known, that it was Dr. Holmes who first suggested to Dr. Morton the use of the terms "Anaesthesia" and "Anaesthetic". [Since this was written there has appeared in the JOURNAL, issue Dec. 29, 1927, an excellent article by Dr. A. H. Miller, entitled "The origin of the word 'Anaesthesia'." This article gives in great detail the history as to the origin and use of the word itself, together with the chain of circumstances which first led to the employment of ether in connection with surgical operations.]

heard it remarked, and the first whispers of a new truth are not caught by those who begin to feel the need of an ear-trumpet. Granting all these advantages to the young man, he ought nevertheless, to go on improving, on the whole, as a medical practitioner, with every year, until he has ripened into a well-mellowed maturity."

He tells the young man that if he expects a practice he must *really want it*, and be willing to work for it, and to sacrifice for it other interests.

"To get business a man must really want it; and do you suppose that when you are in the middle of a heated caucus, or halfway through a delicate analysis, or in the spasm of an unfinished ode, your eyes rolling in the fine frenzy of poetical composition, you want to be called to a teething infant, or an ancient person groaning under the griefs of a lumbago? I think I have known more than one young man whose doctor's sign proclaimed his readiness to serve mankind in that capacity, but who hated the sound of a patient's knock, and, as he sat with his book or his microscope, felt exactly as the old party expressed himself in my friend Mr. Bromwell's poem—

"All I axes is, let me alone."

In speaking of the personal habits of the physician he tells the story of a doctor who occasionally partook of alcohol:—"We commonly speak of a man as being the worse for liquor, but I was asking an Irish laborer one day about his doctor, who, as he said, was somewhat given to drink. "I like him best when he's a little that way," he said; "Then I can spake to him". I pitied the poor patient who could not venture to allude to his colic or his pleurisy until his physician was tipsy."

"There are personal habits of less gravity than the one I have mentioned which it is well to guard against, or, if they are formed, to relinquish. A man who may be called at a moment's warning into the fragrant boudoir of suffering loveliness should not unsweeten its atmosphere with reminiscences of extinguished meerschaums. He should remember that the sick are sensitive and fastidious, that they love the sweet odors and the pure tints of flowers, and if his presence is not like the breath of the rose, if his hands are not like the leaf of the lily, his visits may be unwelcome, and if he looks behind him he may see a window thrown open after he has left the sick-chamber."

"Need I remind you of the importance of punctuality in your engagements, and of the worry and distress to patients and their friends which the want of it occasions? One of my old teachers always carried two watches, to make quite sure of being exact, and not only kept his appointments with the regularity of a chronometer, but took great pains to be at his patient's house at the time when he had reason to believe he was expected, even if no express appointment was made. It is a good rule; if you call too early, my lady's hair may not be as smooth as could be wished, and, if you keep her waiting too long, her hair may be smooth, but her temper otherwise."

Dr. Holmes emphasizes the importance of not giving too much information to the patient.

"No matter how hard he stares at your countenance, he should never be able to read his fate in it. It should be cheerful as long as there is hope, and serene in its gravity when nothing is left but resignation. The face of a physician, like that of a diplomatist, should be impenetrable. Nature is a benevolent old hypocrite; she cheats the sick and the dying with illusions better than any anodynes. If there are cogent reasons why a patient should be undeceived, do it deliberately and advisedly, but do not betray your apprehensions through your tell-tale features."

"We had a physician in our city whose smile was commonly reckoned as being worth five thousand dollars a year to him, in the days, too, of moderate incomes."

Dr. Holmes then gives his opinion as to how much to tell the patient. "Your patient has no more right to all the truth you know than he has to all the medicine in your saddle-bags, if you carry that kind of cartridge-box for the ammunition that always slays disease. He should get only just so much as is good for him. I have seen a physician examining a patient's chest stop all at once, as he brought out a particular sound with a tap on the collar-bone, in the attitude of a pointer who has just come on the scent or sight of a woodcock."

He defines what he calls a good patient and relates a story from his own experience.

"What I call a good patient is one who, having found a good physician, sticks to him till he dies. But there are many very good people who are not what I call good patients. I was once requested to call on a lady suffering from nervous and other symptoms. It came out in a preliminary conversational skirmish, half medical, half social, that I was the *twenty-sixth* member of the faculty into whose arms, professionally speaking, she had successively thrown herself. Not being a believer in such rapid rotation of scientific crops, I gently deposited the burden, commending it to the care of number twenty-seven, and, him, whoever it might be, to the care of Heaven."

He speaks of professional relations with fellow practitioners, and refers to certain individuals, who are not easy to get on with. "You will be liable to meet an uncomfortable man here and there in the profession,—one who is so fond of being in hot water that it is a wonder all the albumen in his body is not coagulated. There are common barrators among doctors as there are among lawyers,—stirrers up of strife

under one pretext and another, but in realty because they like it."

In a *Dedicatory Address* at the opening of the Boston Medical Library, December 3, 1878, Dr. Holmes refers to the importance of having an *efficient index* in every library of medical literature. This, of course, was before the days of the *Index Medicus!*

"A great portion of the best writing and reading—literary, scientific, professional, miscellaneous—comes to us now, at stated intervals, in paper covers. The writer appears, as it were, in his shirt-sleeves. As soon as he has delivered his message the book-binder puts a coat on his back, and he joins the forlorn brotherhood of "back volumes", than which, so long as they are unindexed, nothing can be more exasperating. Who wants a lock without a key, a ship without a rudder, a binnacle without a compass, a check without a signature, a greenback without a goldback behind it?"

He then speaks of the scholar's love for his books, and graphically describes their relation to his nervous system, thus indirectly suggesting the pain it would give him to part with them.

"The scholar's mind, to use a similiar comparison, is furnished with shelves, like his library. Each book knows its place in the brain as well as against the wall or in the alcove. His consciousness is doubled by the books which encircle him, as the trees that surround a lake repeat themselves in its unruffled waters. Men talk of the nerve that runs to the pocket, but one who loves his books, and has lived long with them, has a nervous filament which runs from his sensorium to every one of them."

His description of some of the venerable old books, which use up much of the shelf-room in every library, and his comparison of these same old volumes with certain human individuals are well worth the reading.

"A library like ours must exercise the largest hospitality. A great many books may be found in every large collection which remind us of those apostolic looking old men who figure on the platform at our political and other assemblages. Some of them have spoken words of wisdom in their day, but they have ceased to be oracles; some of them have never had any particular important message for humanity, but they add dignity to the meeting by their presence; they look wise, whether they are so or not, and no one grudges them their place of honor. Venerable figure-heads, what would our platforms be without you?"

"Just so with our libraries. Without their rows of folios in creamy vellum, or showing their black backs with antique lettering of tarnished gold, our shelves would look as insufficient and unbalanced as a column without its base, as a statue without its pedestal. And do not think they are kept only to be spanked and dusted during that dreadful period when their owner is but too thankful to become an exile and a wanderer from the scene of single combats between dead authors and living housemaids. Men were not all cowards before Agamemnon or all fools before the days of Virchow and Billroth. And apart from any practical use to be derived from the older medical authors, is there not a true pleasure in reading the accounts of great discoverers in their own words? I do not pretend to hoist up the Bibliotheca Anatomica of Mangetus and spread it on my table every day. I do not get out my great Albinus before every lecture on the muscles, nor disturb the majestic repose of Vesalius every time I speak of the bones he has so admirably described and figured. But it does please me to read the first descriptions of parts to which the names of their discoverers and those who have first described them have become so joined that not even modern science can part them; to listen to the talk of my old volume as Willis describes his circle and Fallopius his aqueduct and Varolius his bridge and Eustahius his tube and Monro his foramen,—all so well known to us in the human body; it does please me to know the very words in which Winslow described the opening which bears his name, and Glisson his capsule and De-Graaf his vesicle; I am not content until I know in what language Harvey announced his discovery of the circulation, and how Spigelius made the liver his perpetual memorial, and Malpighi found a monument more enduring than brass in the corpuscles of the spleen and the kidney."

"There are practical books among these ancient volumes which can never grow old. Would you know how to recognize "male hysteria" and to treat it, take down your Sydenham; would you read the experience of a physician who was himself the subject of asthma, and who, notwithstanding that, in the words of Dr. Johnson, 'panted on till ninety!' you will find it in the venerable treatise of Sir John Floyer; would you listen to the King's Evil cured by the royal touch, as told by a famous chirurgeon who fully believed in it, go to Wiseman; would you get at first hand the description of the spinal disease which long bore his name, do not be startled if I tell you to go to Pott,—to Percival Pott, the great surgeon of the last century."

Here are a few extracts from an *Address at the Commencement Exercises of the Dental Department* in Harvard University, February 14, 1872.

. . . Dr. Holmes, after referring to one of those—at that time newly invented—"magic chairs which fit alike the giant and the dwarf, which would accommodate the visitors of Procrustes and suit itself to all the transformations of Proteus", then goes on to say:—"Were this an assemblage of dentists and dental students only, who would dare to open his mouth for speech before the members of a profession in whose presence kings are silent, at whose command eloquence is struck dumb, and even the

irresistible and irrepressible voice of woman is hushed into a brief interval of repose?"

Speaking of the importance of the teeth, he says: "The value of the teeth to human beings is so prodigious that so soon as attention was fairly turned to the proper management and the methods of repairing their losses, inventive talent precipitated itself, so to speak, upon a new department of human industry. There is not a pearl in any royal crown for which a young queen would give one of her front incisors."

And, referring to the relation between the teeth and proper enunciation, he says: "But we must add to this the consideration that speech is so largely dependent on the perfection of the teeth that our language, we might almost say, loses a letter with every tooth that falls. What can be more painful to witness than the effort of a hapless friend to bite his consonants out of the alphabet when he is reduced to the condition of the infant, whose boneless gums are unfit for any task but the caressing pressure of the maternal mouthful?"

Referring to the subject of artificial teeth, he narrates that: ". . . Mr. Greenwood, of New York, you may remember, carved a set [of artificial teeth] for the Father of his Country, and one can hardly fail to see how the flattened and compressed lips were in a perpetual struggle with those loose-fitting arches and rebellious spirals. Yet this was considered a masterpiece of dental workman-ship, and I have no doubt that pilgrimages have been made to Mount Vernon by artificers in that line of business who left with a tear in one eye at the sight of Washington's majestic countenance, and a twinkle of satisfaction in the other at the triumph achieved by Mr. Greenwood."

"Contrast this state of things with the manufacture of artificial mineral teeth as carried on in this country, where it has been brought to its greatest perfection."

He continues as follows:—"Compare the delicately tinted, exquisitivly shaped porcelain incisors with those frightful ivory palisades that used to play up and down like a portieullis in a manner to terrify all beholders. In fact, the perfection of artificial teeth is carried almost too far. They have come to be for the inside of the head what the wig was for the outside in the days of our ancestors."

Still further he says:—"So with the artificial teeth of this dental millenium in which it is our good fortune to live. They are comely, they never ache, they are contented with their situation and keep their place, which is more than we can say of most of our living servants; they undergo no changes in the mouth, they admit of the nicest personal proprieties, they serve perfectly for articulation, and, though one can hardly crack a peach-stone with them, as some can with their native molars, or use them for biting off the heads of iron nails, as used to be told of Ethan Allen, they do good service in the respectable and responsible duties of mastication."

He then gives a picture of (probable) alveolar abscess, and its subsequent history: "You miss your friend for a little time—he is in his chamber with his jaws tied up, perusing Zimmermann on Solitude for a few days—suffering from toothache is the figurative language in which his condition is announced. When he returns to society he has recovered his youth, like Jason in the hands of Medea, and his smile is a glittering welcome, a mineral benediction which it is a joy forever to have been blest with."

Concerning the *Key*, which, before the days of the forceps, was the only instrument available for extractions, he says:—"There never was a claw on bird or beast that was the cause of such anguish of apprehension, such howls of agony as that diabolical instrument, looking like a vulture's talon, but known by the name of *the key*. It was a key indeed, it may have opened the door of heaven to the sufferer in due time, but while the bolt was turning the victim thought he was in that other place, where the man must be who invented the instrument of torture."

He pays his respect also to the *mallet*, which in the early days of dentistry was always used for inserting fillings:—"The use of the mallet in filling teeth, every blow of which instrument is a fractional knock on the head to the patient equal to about one hundredth of that which a slayer of cattle gives to a full grown ox to finish him, but which being taken in individual doses allows the sufferer to escape with his life—the use of the mallet, automatic or other, far from agreeable as it is, is considered a vast concession to the art of dentistry. Every man must be anvil or sledge, says Goethe, and it is quite plain that our friends the dentists have settled it so far as they and we are concerned."

No prose written by Holmes shows more feeling or deeper sentiment than his "*Farewell Address* to the Medical School at Harvard University, November 28, 1882, entitled: "*Some Of My Early Teachers*". Among many other things he says:—

"I can scarcely credit my memory when I recall the first impressions produced upon me by sights afterwards become so familiar that they could no more disturb a pulse-beat than the commonest of every-day experiences. The skeleton, hung aloft like a gibbeted criminal, looked grimly at me as I entered the room devoted to the students of the school I had joined, just as the fleshless figure of time, with the hour-glass and scythe, used to glare upon me in my childhood from the "New England Primer". The white faces in the beds at the hospital found their reflection in my own checks, which lost their color as I looked upon them. All this had to pass away in a little time; I had chosen my profession, and must meet its painful and repulsive aspects until they lost their power over my sensibilities".

He speaks with some enthusiasm of his teach-

ers in the private medical school which he joined early in life. He also mentions certain fellow-students at that School, some of whom later made their marks in life. Later he attended a few lectures in the School of the University, and then went to Europe. He tells about the famous professors of medicine and surgery in those days in Europe, especially in Paris, with some of whom he studied. Among them was Baron Larrey, Napoleon's favorite surgeon, who accompanied that great soldier in many of his campaigns, and Velpeau, and Dupuytren, the latter of whom made a marked impression on all those who heard him. Holmes said:—"I do not think that Dupuytren has left a record which explains his influence, but in point of fact he dominated those around him in a remarkable manner. You must have all witnessed something of the same kind. The personal presence of some men carries command with it, and their accents silence the crowd around them, when the same words from other lips might fall comparatively unheeded."

He speaks at some length also of Louis, and he recalls his own enthusiasm at that time for this special teacher. He says of Louis:—"We had addicted ourselves almost too closely to the words of another master, by whom we were ready to swear as against all teachers that ever were or ever would be." "This object of reverence, I might almost say idolatry, was one whose name is well known to most of the young men before me, even to those who may know comparatively little of his works and teachings."

He mentions, or describes, other teachers of his, some of whom made such contributions to medical progress that their names are still remembered, while others are entirely forgotten.

Near the end of this farewell address, he said [one can feel the pathos of it]:—

"My show of ghosts is over. It is always the same old story that old men tell the younger ones, some few of whom will in their turn repeat the tale, only with altered names, to their children's children.

"Like phantoms painted on the magic slide,
"Forth from the darkness of the past we glide.
"As living shadows for a moment seen
"In airy pageant on the eternal screen,
"Traced by a ray from one unchanging flame,
"Then seek the dust and stillness whence we came."

QUARANTINE EFFECTIVE TO KEEP OUT DISEASE

Not a single case is recorded of entry into the United States of quarantinable diseases from abroad in the fiscal year 1927, according to a statement by the Surgeon General, Dr. Hugh S. Cumming, of the Public Health Service, made public January 4.

The full text of the statement follows:

A striking report has recently been transmitted to Congress by Surgeon General H. S. Cumming, of the Public Health Service, in which it was shown that the past fiscal year was notable on account of the small numbers of quarantinable diseases that threatened our borders.

No cases gained entrance to the country, although 17 cases of smallpox, 2 cases of leprosy, and 2 cases of human plague were apprehended at quarantine stations of the Public Health Service and detained.

This fortunate situation was due not only to the system of control at domestic ports, but to the system of medical inspections maintained at certain foreign ports from which diseases are likely to spread, on account either of the presence therein of quarantinable diseases or the volume of commerce emanating therefrom.

At domestic ports during the year, 20,284 vessels, 820,793 passengers and 1,140,922 seamen were inspected on arrival by quarantine officers; at insular ports of the United States 2,991 vessels, 169,461 passengers and 226,373 seamen were inspected; at foreign ports 5,954 vessels, 424,172 passengers, and 272,873 seamen were inspected prior to embarking for the United States.

Realizing that the prevention of the importation of epidemic diseases is based on scientific knowledge which is constantly advancing, action has been taken to improve quarantine methods, making them more efficient, more precise, and less burdensome to commerce. Fumigations are now based more upon the actual conditions of vessels and less upon routine procedure.

On account of their special construction, tank ships afford little harborage for rats. Observation showed that fumigation of these vessels yielded practically no rats, except in certain instances which could have been foreseen by careful inspection. Fumigation of this class of vessels, therefore, is now being done only after inspections which show actual rat infestation.

In order to maintain a vessel in a rat free condition, or least to have the rat population reduced to negligible numbers, it is necessary either to fumigate at least every six months or that the vessel be rat-proofed. Many steamship companies have come to realize the importance to public health and the economic value of rat-proofing their vessels, so that during the past year a great many of the larger passenger ships have been made rat-proof and are being maintained in that condition.

The medical examination of applicants for immigration visas in foreign countries of origin by medical officers of the Public Health Service, first inaugurated August 1, 1925, in England, Scotland and Ireland, was carried out on a more extended scale during the fiscal year ending June 30, 1927. The demonstrated advantages of the new system to the prospective immigrants, to the communities of origin, and to transportation companies resulted in additional requests to the State Department for the extension of the plan to other countries.

As a result of official representation and agreement, medical examinations by Service officers were inaugurated July 1, at five American consulates in Germany, namely, Berlin, Bremen, Cologne, Hamburg and Stuttgart; at Bergen and Osle, in Norway, July 15, 1926; at Copenhagen, Denmark, July 19, 1926; at Goteberg and Stockholm, Sweden, and at Warsaw, Poland, September 1, 1926.

These additions increased to 20 the total number of American consulates where medical examinations of applicants were made during the fiscal year, representing 11 countries, counting North Ireland and Scotland as separate countries.

During the fiscal year ending June 30, 1927, a total of 148,539 applicants for immigration visas were given medical examinations. Of the total examined 12,987, or 8.74 per cent., were found to have mental or physical disabilities; 6,580, or 4.43 per cent. of the total examined, were refused visas for medical reasons.

The advantages of making medical examinations of aliens prior to departure are now generally recognized.—*United States Daily.*

NEW ENGLAND SURGICAL SOCIETY

THE SURGERY OF PULMONARY TUBERCULOSIS*

BY WYMAN WHITTEMORE, M.D., F.A.C.S.

IT was just twenty years ago that surgery was first called upon to aid in the treatment of certain cases of Pulmonary Tuberculosis. To be exact it was on December 11, 1907, that Freidrich, at that time Chief of the Surgical Clinic at Marburg, Germany, performed the first extrapleural thoracoplasty on a tubercular patient. Five years later, 1912, Archibald of Montreal performed a similar operation on a correspondingly diseased patient. He, then, was the first to perform this operation on this continent. In spite of Archibald's work, for years the beneficial results obtained by surgery were not recognized in this country, whereas the Germans, Swiss and Scandinavians were using the operation frequently and recognizing its possibilities.

The indications for or against surgery in pulmonary tuberculosis are many, and to deal with them fully here would take too much time. But briefly it may be said that the ideal patient for operation is the one in which the disease is limited to one side and in whom sanitarium treatment including pneumothorax has failed. Intimate co-operation between the pulmonary medical specialist and the thoracic surgeon is required in these cases. If operation is decided upon the main responsibility falls on the surgeon and in most instances all of it if the result is unfortunately a fatal one. So the surgeon should have knowledge enough to know what cases should or should not be operated on, or at least know what he is willing to undertake. Naturally, the first question that will come up is whether or not there is ever a case of advanced pulmonary tuberculosis limited entirely to one side. There are such cases but they are rarely encountered. If this statement is correct, is it ever justifiable to operate when there is disease in the so-called good lung? At the present moment we believe that it is legitimate to operate if the disease in the good lung is limited in extent, confined to the apex and is not active. An active process situated in the lower lobe or about the hilum contraindicates operation. The greatest difficulty that we meet with is to determine whether or not the process in the good lung is active. A perfect X-ray film correctly interpreted helps a great deal. Râles may or may not be an indication of activity. Pulmonary specialists differ widely in their views on this subject some thinking râles are not necessarily a sign of activity and others maintaining that they always mean activity.

Cases in which not only the lung but the pleura is involved in the disease, some having a thin tubercular pus sealed in the pleural cavity, others having a thoracic fistula through which the pus discharges, and still others having a pleuropulmonary fistula from which the pus is raised by coughing, may be greatly benefited by operation.

Cases in which Nature has been trying to produce a cure by displacing the mediastinum towards the diseased lung are greatly aided by surgery.

Where individuals in which the lung has been kept collapsed for a long time with artificial pneumothorax find that each time the lung is allowed to expand there is an increase of symptoms, operation should be strongly considered.

Border-line cases in which X-ray demonstrates that a band or several bands prevent complete collapse by artificial pneumothorax may fall into the operative group. It is true that in rare instances these bands disappear but in the vast majority they do not. Stretching these adhesions by artificial pneumothorax may make an opening into the lung that will result in an empyema or a tension pneumothorax and so cannot be enthusiastically recommended. Whether these cases should have a thoracoplasty performed or the bands burnt by means of a thoracoscope is a debatable point.

The surgical treatment of pulmonary tuberculosis is based on operations that tend to collapse or compress the diseased lung either partially or completely. Freidrich, the first surgeon to perform the operation of thoracoplasty upon a pulmonary tuberculosis case, made a long, curved incision starting high in the back close to the vertebral column, going down to about the tenth rib in the axillary line and then up in front to the corresponding level of the posterior incision. This was made in order to remove the whole of the upper ten ribs. The operation being a very formidable one Wilms of Heidelberg devised an operation that consisted of removing a section of the upper ten ribs, both anteriorly and posteriorly, but leaving the middle section of each rib. In 1910 Sauerbruch performed the operation that bears his name and is the accepted one in use today in this country. In this, posterior sections only of the upper ten or eleven ribs are removed. Brauer at about the same time, although an internist, decided to operate on these cases himself. He believed that that part of the ribs which lies beneath the scapula should be removed. Strangely enough the results of all four of these pioneers in this field of surgery have been very similar. Wilms and Freidrich's series are small, both being now dead; Brauer's somewhat larger; but Sauerbruch's cases number many hundreds. All four

*Read at the Annual Meeting of the New England Surgical Society at Manchester, N. H., September 30, 1927.

found that between fifty and sixty per cent. of the cases that survive operation were cured or improved.

The question of anesthesia is a very important one in dealing with pulmonary tuberculosis patients. At the present time there is a certain amount of difference of opinion as to whether local anesthesia should be used entirely or whether a combination of local and some general anesthesia should be used. Whether one part of the operation should be done with local anesthesia and later on the operation completed under a general anesthetic, or whether the entire operation should be done under a general anesthetic are the chief questions at the present time. Some years ago nearly all thoracic surgeons felt that local anesthesia used in one way or another was the ideal one. But at the present time it seems that surgeons are turning more and more towards a general anesthetic. The main objection to a general anesthetic is that the patient may aspirate the contents of an abscess cavity into some other part of the lung. But if the patient is carefully prepared for the operation this will not happen. These tubercular patients seem to me to be extremely apprehensive, much more so than the general surgical patient, and is operative under local anesthesia though the pain suffered may be very slight, yet the mental anguish that they go through is not good for them. For the last eight or nine months we have been using a combination of ethylene and gas oxygen on all these patients with possibly rare exceptions in which local anesthesia is used to do part of the operation, and have had no cause to be sorry that we used a general anesthetic.

Sauerbruch's operation consists in removing posterior sections of eleven ribs, including the 1st and the 11th. There is some difference of opinion as to just how this should be done and how much of each rib should be removed. Sauerbruch himself removes only a very small section of each rib, but it has seemed to us that a considerable length of rib should be removed when possible. In certain patients this whole procedure could be safely done in one sitting. On the other hand, in many instances this would be more than the patient could stand. Therefore, it has seemed wise to adopt the custom of making two or more stages in these operative procedures. We know that this is the safest procedure. Naturally, few patients like to look forward to two operations or even three, but the surgeon should not be influenced by this. Whether the operation should start at the upper ribs or at the lower ribs seems to be somewhat of a question. Lambert and Miller, and also Lilienthal are in favor of beginning with the upper ribs on the ground that there is less danger of aspiration pneumonia. On the other hand other authorities advocate the removal of the lower ribs first for exactly the same reason. One can argue equally on either side of the question. In general it may be said that the upper part of the operation is the more difficult and so this may be a good reason for doing it first. But, on the other hand, there is much more discomfort following the removal of the lower ribs than following the removal of the upper ones, and so for this reason it may be better to do the lower operation first. When the upper ribs are to be removed first the following order of removal is the simplest, 3rd, 2nd, 1st and then 4th, 5th, 6th, etc. I have been impressed with the injection of the intercostal nerves with alcohol for the relief of postoperative pain, and use it as a routine. If sections of the 9th, 10th and 11th ribs are removed I believe that the movement of the diaphragm is as completely destroyed and its assent as great as when the phrenic nerve is removed. This opinion, however, is not endorsed by some other surgeons.

It has been my experience that following the first stage of the operation there has been little change in the patient's symptoms. There is still apt to be cough and fever but after the whole operation is completed there is a very decided change for the better in about a week in those cases in which the operation is surely going to benefit. The cough lessens very much or disappears, the temperature stays down to nearly normal and there is a general sense of improvement and well-being noticed by the patient himself.

Apicolysis in which the apex of the lung is compressed may be a very useful operation when there is a large cavity in the apex and little disease elsewhere. But when there is disease in the rest of the upper lobe and also in the lower lobe a thoracoplasty should be done first and if this does not collapse the cavity apicolysis might well be done. In this operation sections of the 2nd or 2nd and 3rd ribs are removed anteriorly and the apex of the lung pushed downwards extrapleurally. The space at the top of the chest created by this procedure should be filled with muscle or fat. Gauze is advocated by some surgeons, but this does not appeal to me on account of the probability of infection.

Wells of Saranac Lake has advocated a little different operation for collapse of an apical cavity. In his operation the approach to the ribs is made through an incision in the anterior axillary line. Sections of the 2nd, 3rd, 4th and 5th ribs are removed anteriorly. It is probable that following this operation a better collapse of the apex will be brought about than following apicolysis.

We have had no personal experience with Jacobeus' method of cauterizing adhesions between the lung and the costal pleura. By the use of an instrument with a light much like a cystoscope, introduced into the pleural cavity through a small incision, adhesions or bands are seen and cut with a cautery, thus allowing the lung to be completely compressed by artificial pneumothorax. The danger of hemorrhage and

empyema following this procedure should be well recognized.

The results of surgery are to my mind amazing when one considers the poor condition of these patients when operation is undertaken. It is remarkable that the immediate mortality is not much larger than it is. An immediate mortality of about four or five per cent. is probably about what should be expected. Archibald's mortality is about four per cent. Out of twenty-four cases of my own there was one death, leaving a mortality of four per cent. But the mortality increases during the first six weeks or two months so that at the end of that time a mortality of about ten or twelve per cent. should be expected. Alexander has collected over eleven hundred cases operated on in America and in Europe with the results about as follows: One-third have been cured in that they are free from any symptoms of tubercular activity for at least one and a half years, with no sputum or none containing tubercle bacilli, and are able to do a whole day's or a part day's work. One-third have been improved or considerably improved, and finally the remaining one-third was made up by those cases in which there was no improvement, patients made worse by the operation and patients still under treatment or not traced. Surely then, if two-thirds of the tubercular patients that are doomed to sure death unless surgery can aid them can be saved by these operations they need no further argument in their favor.

Discussion

Ralph B. Ober, M.D., F.A.C.S., Springfield: We have all listened to a very interesting paper by Dr. Whittemore; and while my knowledge of the subject is largely academic, I am extremely interested in it because it seems to offer hopeful possibilities for some of those who are chronically sick with tuberculosis. It has been estimated that in this country there are 30,000 patients who present the proper indications for this operation which Dr. Whittemore has described; in other words, those who have the disease chiefly confined to one lung where the process is of a fibrous nature and where the general condition is fair; that is, the other vital organs for example, the heart, liver and kidneys, are in good condition. These people are unable to earn their living because of weakness and constant expectoration of tubercle bacilli. If we can offer these 30,000 people in this country even one chance in three of return to earning capacity and freedom from infection, it seems worth while; and as Dr. Whittemore says, our country has been backward in this matter. So far as I can find, less than 500 cases have been operated on in this manner in this country, while five to ten times that number have been operated upon in Europe, especially in Germany and in Scandinavia.

I think we ought to be glad that we have a man like Dr. Whittemore so near us, who is doing this operation, because there are so many cases suitable for it.

D. F. Jones, M.D., F.A.C.S., Boston: In 1925 several of us had the pleasure of seeing Dr. Roux of Lausanne, Switzerland, who is now about seventy years of age, do the operation about which Dr. Whittemore has been telling us. The operation was done in forty-five minutes under local anaesthesia, which had been given before the patient was brought into the operation room. A section, varying from about 3 centimeters to 15 centimeters in length, was removed from each rib except the eleventh and twelfth. The scapula was raised by a derrick placed over the head of the table. A hook was put into the scapula and the derrick was used to raise it enough to permit Doctor Roux to remove the ribs beneath it. The incision was not carried over the shoulder because Doctor Roux felt that the patient would be much more comfortable if this were not done.

Dr. Wyman Whittemore, Boston (closing): I knew the question of phrenicotomy would be asked and I am sorry that it was asked. We have a rather different opinion about phrenicotomy at the Massachusetts General Hospital than they have in other parts of the United States. Many men are enthusiastic about it and report good results. We, personally, have had no experience with it but we have studied the subject and seen x-rays of other men and haven't been impressed with phrenicotomy, and we believe that if a patient is going to have an operation, he had better have the whole thing done.

I have been interested in Churchill's experience. He is one of our men. He has been following the men abroad, and in talking with him we discussed the subject of how they felt in Europe about phrenicotomy, and I can quote what Sauerbruch told him, which is to the effect that at present phrenicotomy is largely a fad, that it is done too often, and that it is rarely indicated. This has been our opinion for the last 15 years.

The pendulum respiration that Dr. Ober spoke of is a very interesting phenomenon which is met in pulmonary surgery and especially in tuberculous invasion of the lung. I think it can be avoided by a recognition on the surgeon's part of the sort of lung with which he is dealing. Now if you have a kind of pulmonary tuberculosis in which there is little fibrosis so that the lung doesn't stand firmly by itself, and you take out too many ribs, then you get this pendulum respiration. We call it flutter of the mediastinum. But if you recognize the possibility of it and take out very few ribs, you will not get it. If you take out too many ribs, you will get this so-called flutter. Where the lung

is firmly fibrosed then you are perfectly safe in taking out a good many ribs.

UNIVERSITY OF CHICAGO

The university has received $300,000 for the erection and equipment of a building to be known as the Gertrude Dunn Hicks Memorial which is to be operated as an orthopedic hospital, and $250,000 to establish an endowment fund to be known as the Louis B. and Emma M. Kuppenheimer Foundation. The income is to be used for teaching and research in the department of ophthalmology.

The Albert Merritt Billings Hospital and the Max Epstein Clinic were opened to patients October 3. Hospital and Out-Clinic service will be available in general medicine, surgery, eye, ear, nose and throat, and neurology. The Chicago Lying-In Hospital affiliated with the University, is being built on the campus. It will provide for obstetric cases. The Charles Gilman Smith Memorial Hospital will care for contagious diseases; the Bobs Roberts Memorial Hospital for children and the Hicks Memorial (see above) for orthopedic surgery.

November 1 and 2 the dedicating exercises for the new medical school were held. For the time being clinical instruction will be continued in Rush Medical College.—*Bulletin of the Association of American Medical Colleges.*

GOVERNMENT TO STUDY INFANTILE PARALYSIS

Research to determine the cause of infantile paralysis, how it is spread and means of preventing it, is being projected by the United States Public Health Service, and preliminary arrangements now are being made for the assignment of expert personnel in this work, it was announced orally December 28 by the Surgeon General, Dr. Hugh S. Cumming.

Infantile paralysis has been abnormally prevalent virtually throughout the United States during 1927, Dr. Cumming stated, and was of epidemic prevalence in certain segregated areas, particularly in Ohio, Massachusetts and California. Although its prevalence has been declining steadily since the late summer and early fall, when it reached its peak, the Surgeon General stated, medical science has been unable to solve the problem of the cause of the disease.

SPECIFIC GERM IS NOT KNOWN

Dr. Cumming pointed out that the projected investigation will include all phases of research into the disease. At the Hygienic Laboratory of the Public Service in Washington, two medical scientists will be designated to conduct basic research as to the cause of infantile paralysis. He explained that medical science has been unable to identify a specific germ as the causative medium of the disease.

The most important element in the laboratory research, it was pointed out by the Surgeon General, will be to ascertain whether infantile paralysis is transmitted to the human being by personal human contact, or whether there is an "intermediate host," in the form of an insect, as is the case in malaria, and many other communicable diseases. It would render the task of control of the disease much easier should there be an intermediate host, Dr. Cumming stated. However, he said, research conducted thus far indicates that there is none and that the disease is transmitted by personal contact.

AFFECTED BY WEATHER

In the field, officers of the Public Health Service will engage themselves in studying measures applicable to the prevention of the spread of infantile paralysis, Dr. Cumming stated, adding that this is another important aspect in the control of any communicable disease.

Discussing the present status of medical knowledge of infantile paralysis, Dr. Cumming stated that it has been definitely ascertained that cold weather has "a very helpful influence" on infantile paralysis, and that the subsiding of the prevalence of the disease in recent weeks can be attributed to the arrival of colder weather. Physio-therapy treatments, involving the massaging of the infected muscles in pools of water, also have proved beneficial as curative measures, he said, but such treatments have no relation whatever to prevention of infantile paralysis.—*United States Daily.*

NEW YORK DEATHS AND BIRTHS DECREASED IN 1927

Deaths in proportion to inhabitants decreased in New York City last year 1.04 per 1,000, Health Commissioner Harris has announced, the saving in lives amounting to 5,652. The death rate per 1,000 for 1927 was 11.80, compared with 12.84 for 1926, while the actual number of deaths was 70,430, compared with 76,082 in 1926.

Not only the death rate but also the birth and marriage rates declined, it was shown by statistics released by the Health Commissioner's office. Last year there were 128,888 births, or 21.6 per 1,000, as compared with 129,080, or 26.95 per 1,000 in 1910. This decrease, in view of an increase of 25 per cent. in population, was remarkable, Dr. Harris said. In 1927 marriages totaled 65,431, as against 68,418 in 1926.

As shown by the statistics, the city last year had the lowest death rate in its history among infants less than one year old. Of every 1,000 children in this age group, 56 died, as compared with 68 of every 1,000 born in 1926. There were 7,207 deaths in this group, while there were 8,509 in 1926. The death rate among children from 1 to 5 years old also was the lowest ever recorded in the city. In this group there were 9,973 deaths, while in 1926 there were 12,599. The rate was 16.7 per 1,000 children, as compared with 21.3 per 1,000 in 1926.

"The reduction in the birth rate is apparently due largely to economic difficulties in 'white collared' families," said Dr. Harris. "It is harder to 'keep up with the Joneses' and to provide for children decently. Parents today are more insistent than ever in providing adequately for their offspring."

As compared with 1900, Dr. Harris said, the city had about one-twentieth the number of deaths from typhoid fever in 1927, there being only 78 deaths from this cause last year.

There were 5,157 deaths from all forms of tuberculosis, or 394 less than last year. Pulmonary tuberculosis claimed 4,442 in 1927 and 4,828 in 1926.

"The work of the 160 field nurses of the Bureau of Preventable Diseases," said Dr. Harris, "and the 19 clinics maintained by the Health Department and its educational work have played a fairly significant part in producing these results."

Cancer mortality showed an increase of 365. There were 7,454 deaths from this cause. Organic heart diseases, arterial diseases and chronic kidney diseases showed a reduction in the last year of about one-tenth as compared with the deaths from these causes in the preceding year. Deaths from these combined causes in 1927 were 23,284, and in 1926, 25,150.—*New York Times.*

ORIGINAL ARTICLES

THE DIAGNOSIS AND PROGNOSIS OF JUVENILE TUBERCULOSIS*

BY HENRY D. CHADWICK, M.D.

THIS paper is based upon the examination of 50,000 school children between the ages of five and fifteen, an investigation carried on during the last three years by the Massachusetts Department of Public Health as a part of the ten-year program for the prevention of tuberculosis; also on my experience as Superintendent of the Westfield State Sanatorium, which is an institution having three hundred beds devoted to the care of tuberculous children.

HILUM TUBERCULOSIS

This term is used to designate the juvenile type of tuberculosis. It is essentially a disease of the lymph glands. Following a first infection, a primary nodule develops in some part of the lung parenchyma, and the tracheobronchial lymph nodes draining that area become infected and diseased. This is the primary complex first described by Ranke. It is the usual form of tuberculosis found in children and but rarely in adults.

DIAGNOSIS is made by considering the following factors:

History: Evidence of contact with an open case of pulmonary tuberculosis is very important, as we have found four times as many cases of hilum tuberculosis and twice as many cases of pulmonary tuberculosis among the contact children as were found among the children with no history of exposure.

Symptoms: Undue fatigue, lassitude, anorexia and nervous irritability are the most common symptoms. Cough and fever, so often present in pulmonary tuberculosis, are rarely found in the juvenile type.

Tuberculin Test: A positive Von Pirquet or intracutaneous tuberculin test is essential to make certain of infection. In children from five to fifteen years old, a positive reaction may not indicate active disease, but it probably does mean that the child is harboring living tubercle bacilli. The question of activity must be determined by symptoms and the general physical condition. The percentage of reactors gradually increases from 20% at age five to 35% at age fifteen. The intracutaneous test is a little more accurate, but is not practical to use in school clinics.

The X-Ray: A roentgenogram is the most valuable aid in the study of these children. Without it, no absolute diagnosis of hilum tuberculosis can be made. Neither is a physician justified in eliminating tuberculosis as a possible cause of ill health in a child, unless the X-Ray film is found to be negative.

The work of Doctors Opie and McPhedran, of the Phipps Institute, in their studies of the lungs of children who had died of other diseases than tuberculosis, has given us a sounder basis for the interpretation of X-Ray shadows found in the lungs. They have demonstrated that enlarged tracheobronchial glands only appear as opaque shadows in a roentgenogram when they contain a deposit of calcium; also that calcium is deposited in glands or nodules only when they are tuberculous.

Slight changes in area or of density of the hilum shadows are of no significance. If, however, there appear areas of increased density at the root of the lung in the region of the normal hilum shadows or along the trachea, that have the form of glands or gland masses, then we are justified in assuming such shadows to be due to calcified, tuberculous glands. Frequently when such glands are found, there is one or more calcified nodules to be seen in the parenchyma of the lung.

Rarely one finds a large area of homogeneous shadow extending from the hilum or well out towards the periphery, due to an exudate resulting from the inflammatory reaction set up by a recent first infection with tubercle bacilli. If such a case is followed by serial films taken at several months' intervals over a period of one to three years, one finds that absorption of the exudate gradually takes place and eventually only a small, calcified nodule remains at the site of the infiltrated area.

Of the five factors that one should consider in making a diagnosis of hilum tuberculosis, the most important ones are a history of exposure to pulmonary tuberculosis, a positive tuberculin test and X-Ray evidence of calcified nodules in the lung or tracheobronchial glands. If the symptoms enumerated above are present, they indicate an active process; that is, the balance between the focus of disease and the child's resistance is not being maintained.

Latent Hilum Tuberculosis is a term used to describe the cases of juvenile tuberculosis quite often met with in children in which there are no physical signs or symptoms of disease. The roentgenogram, however, may show calcified masses at the hilum or one or more nodules in the lung. The tuberculin test is positive, from which we can conclude that living tubercle bacilli are present. In such cases, an unstable immunity exists. A lowered resistance, due to an intercurrent disease, a reinfection from the child's own focus or from outside sources, may

*Read before the Association of Life Insurance Medical Directors of America, New York, N. Y., October 28, 1927.

quickly convert a latent case into an active one.

Incidence of Infection: Our State Clinic statistics show that 29.6% of nearly 25,000 children between the ages of five and fifteen reacted to the Von Pirquet tuberculin test. As this group was made up of 16% contacts and many underweight children, this percentage is considerably higher than the average would be if all the children were given the test with no attempt at selection. The percentage of reactors among the contact children was nearly twice as high as among the non-contact group. One community that had been colonized extensively by tuberculous families had a very high percentage of reactors.

The children who were underweight had a little higher percentage of reactors than those who were average weight. The rural group showed 27.5% reactors as compared with 29.9% for the urban children. All the school children in three small towns were given the tuberculin test and the reactors averaged 16%.

The percentage of infected children appears to be much less than has been found in previous surveys. As evidence of this reduction, it is interesting to compare the results obtained by the State Clinic examiners in 1926, in Framingham, with those found by Dr. P. C. Bartlett in the work he did for the Framingham Demonstration in 1917. Dr. Bartlett gave the tuberculin test to 460 children from one to seven years of age and found 33% of them infected. The State Clinic examined 520 children from three to fifteen years of age and 25.5% reacted to the tuberculin test. When we divided these children into age groups, we found that the Demonstration group, age five to seven years, showed 52% reactors and the State Clinic group of corresponding age, only 14.2%—a decrease of 38%.

THE INCIDENCE OF TUBERCULOUS DISEASE

It must be kept in mind that the figures that I present report the findings in a selected group of school children. In this group, there were 16% contacts and 37% of the whole number were 10% or more underweight. Therefore, only a little less than half were average weight children.

A diagnosis of hilum tuberculosis was made in 3.7% of those examined. 10.4% more were classified as suspects. These suspects were reactors who did not show definite X-Ray evidence of a tuberculous lesion, but who were malnourished and in poor physical condition. A child may have tuberculous tracheobronchial glands that are much enlarged and undergoing softening and caseation, but if there is no deposit of calcium in them, they will not cast a shadow that can be distinguished in the roentgenogram. Therefore, a poorly-nourished child known to be infected with tubercle bacilli, as shown by the tuberculin test, should be given careful supervision, even if the roentgenologist reports a negative film.

Instead of taking our selected group of children as a basis, we can arrive at a more accurate estimate of the number of tuberculous children of school age by obtaining our figures from the number of reactors where all the children of a community are given the tuberculin test. The three rural towns where we gave the test to all the children had 16% reactors. As the small towns throughout the State averaged 2.4% less reactors than the urban communities, it would seem equitable to add this difference to the rate found in the towns and consider 18 to 20% as the State-wide average.

We found in our clinics that 12.5% of the reactors were diagnosed as having hilum tuberculosis and 35% more of them were classified as suspects. 47.5% of the reactors, therefore, appeared to be in need of special care or treatment. This would be equivalent to between 9 and 10% of the whole school population below the high school grade. This estimate does not seem to be excessive when we study the death rate from tuberculosis.

Last year 6.5% of all deaths in Massachusetts were from some form of tuberculosis. 18% of these were in persons under twenty years of age. We found but fifty school children, out of 25,000, that could be classified as having the adult type of pulmonary tuberculosis. Some of these seemed to have the secondary or adult type superimposed or extending from a primary nodule. Such cases may be due to long-continued association with a person having an open case of pulmonary tuberculosis or to reinfection from their own foci of disease. This latter may take place from direct extension from a primary nodule or, more often, through the rupture of a caseous gland directly into a bronchus or blood vessel.

PROGNOSIS

We find from our experience that the children with hilum tuberculosis, who have sanatorium treatment long enough to reach average weight, develop good musculature and live the normal child's daily life without undue fatigue, that they remain well after discharge, provided their home conditions are reasonably good.

Roentgenograms taken at intervals will show a gradually-increasing density of the nodules and tuberculous glands as the deposit of calcium takes place and the absorption of any exudate there may be about them. Occasionally, nodules or glands that appear to be calcified will undergo absorption. The fact that calcified areas are seen, however, does not assure us that the whole diseased focus has become healed. Furthermore, there may be other caseous glands in which healing has not reached the point where sufficient calcium has been deposited to produce a shadow that can be seen in the film.

It is Dr. Opie's opinion that living bacilli may persist in or about apparently well-calcified foci, at least through the period of ado-

lescence. He also states that after twenty, probably the calcified foci do not contain viable bacilli.

We are now endeavoring to trace the children who have been discharged from the Westfield State Sanatorium to determine how many have subsequently developed the adult pulmonary tuberculosis. I know that such a sequence but rarely occurs.

Corroborative evidence that many school children have hilum tuberculosis is obtained by the examination of older students. We have taken roentgenograms of 3800 college, normal school and high school students. Only 900 of this group were in the high schools. We found six students with the pulmonary type of tuberculosis, and two hundred and thirty-one had the latent hilum type of disease. This is 6% of the whole number. Their lesions had been in existence some years, as they had well-calcified pulmonary nodules or tracheobronchial glands. We know that frequently tuberculous nodules and glands entirely disappear through absorption; therefore, our estimate of 9 to 10% of the whole number of school children having this glandular type of disease is not excessive.

SUMMARY AND CONCLUSIONS

About 20% of the school children in Massachusetts are infected with tubercle bacilli, as shown by the Von Pirquet tuberculin test. Approximately one-half of these have signs or symptoms or X-Ray evidence of the juvenile type of tuberculosis. The prognosis in those children, if they are discovered before the secondary or adult type develops, is excellent, provided they receive good home supervision or care, or when they have preventorium or sanatorium treatment.

It is probable that many of the deaths from tuberculosis that occur in adolescence and early adult life are the result of massive infection in childhood that was unrecognized and untreated. We also find that the early pulmonary case in children, if found and treated before tubercle bacilli are present in the sputum, the prognosis is good. If, however, these secondary lesions go on to the ulcerative stage and bacilli are set free, then the child, if under sixteen years of age, will almost invariably die of pulmonary tuberculosis, regardless of what treatment is given.

THE PROTECTION OF FIREMEN AGAINST OCCUPATIONAL HAZARDS*

BY SHIELDS WARREN, M.D.

THE developments of modern civilization have brought about an entirely new group of hazards for firemen. The ingrained habit of generations of turning to the fire department for aid in any type of disaster means that it may be called upon in the gravest disaster or the most trivial occurrence. When the call comes in, it may be for a fire, for leaking fumes from a refrigeration plant or a man overcome in a gas-filled trench.

By and large, the two most important hazards to be considered are smoke, complicated at times by a large amount of carbon monoxide, and illuminating gas. Smoke consists of unburned particles of carbon carried away from the fire by the currents of heated gases, various products of incomplete combustion, including almost any compound that may be separated by the destructive distillation of wood, and carbon monoxide. In ordinary smoke, in the open air, none of these substances are present in sufficient concentration to be poisonous. Everyone knows from his own experience that individuals vary greatly in their resistance to the irritative substances present in smoke. Every fire department has its "smoke eater" who can stand far more than the ordinary run of men. Another individual variation appears to be the relative susceptibility of the eyes and the mucous membranes of the nose and mouth. In high concentration of smoke, however, the immediate effect on throat, eyes and lungs is so powerful that it prevents anyone from performing effective work, and may, in extreme cases, so interfere with normal respiration as to produce unconsciousness.

A fact familiar to firemen, but perhaps not widely known to the medical profession, is that not infrequently men who have been severely smoked will collapse after reaching the open air. This collapse is usually due to acapnia. The large amounts of carbon dioxide in smoke, and the exertions of the firemen cause marked hyperpnoea; on leaving the smoke, with its high concentration of carbon dioxide, and entering the fresh air, this labored breathing continues and a large proportion of carbon dioxide is washed out of the system. There is not sufficient carbon dioxide in the outside air to afford a stimulus for continued breathing at this rate. Owing to the sudden decrease in concentration of carbon dioxide in the respired air, complete collapse may occur. Prompt recovery from this collapse can be brought about by the Schaefer prone pressure method of artificial respiration, and, if any carbon dioxide happens to be available, it will aid materially in reviving the man and preventing him from having unpleasant after effects (Henderson[1]), just as in the case of carbon monoxide poisoning. A rough and ready method of treatment, that the writer has

*From the Pathological Laboratory of the Palmer Memorial Hospital.
Read before the Needham, Massachusetts, Fire Department, November 2, 1927.

found to be of some value because of its accessibility, is to provide an increased concentration of carbon dioxide by means of ginger ale, or some other carbonated beverage, shaken up to produce the maximum amount of foaming and held beneath the nose.

Aside from the irritative substances in smoke, the most important component, and by far the most dangerous, is carbon monoxide. This gas is formed wherever there is incomplete combustion, and the amount varies according to the intensity of the fire, type of material burned, and the amount of ventilation. In a cellar fire, a fire in a blind attic, or even in closed rooms the percentage of carbon monoxide may be very high. Although men vary somewhat in their resistance to carbon monoxide poisoning, the great muscular exertion which is necessitated by the duties of the firemen leads to rapid saturation of their blood with carbon monoxide, if its concentration is at all high. Consequently, firemen should regard as dangerous atmospheres containing as low as one part per thousand carbon monoxide. This is not dangerous for short periods of time, but for over ten minutes it is distinctly dangerous[2]. The symptoms of carbon monoxide poisoning are very insidious, and its chief danger lies in the fact that frequently persons may be overcome by it without even realizing that there is anything wrong. The first symptoms are slight dyspnea and palpitation of the heart, and usually the senses and the power of judgment are so greatly impaired before the person is aware that anything is wrong that he is unable to escape before being overcome. Even though a person may be rescued from carbon monoxide still living, after-effects of the poison may persist for hours, or even days, and, in severe cases, permanent damage to the central nervous system may occur. In a great many houses gas meters are connected to the supply main by lead pipes and in a hot cellar fire these become melted allowing the illuminating gas, rich in carbon monoxide to escape and cause a very serious added risk to the firemen.

It is hardly necessary to speak of the hazards provided by the various appliances using large amounts of gas, and to emphasize the fact that every gas stove and gas water heater should be adequately vented. Since firemen are not infrequently called upon to work in dangerously high concentration of carbon monoxide, not only at fires, but also in rescuing individuals from gas-filled rooms, man-holes or trenches, every fire company should have a certain number of gas masks. These should be adapted to protect against carbon monoxide. The first and most essential point to remember is that the army type of gas mask gives absolutely no protection against carbon monoxide, ammonia, or a number of the other gases which firemen may be called upon to meet. The army type will effectively protect against soot, tar and smoke. Owing to the irritative effect of smoke on the eyes a gas mask covering the entire face should be used and should be supplied with a canister of the Universal type. The Universal gas mask, developed by the Bureau of Mines together with the Chemical Warfare Service, is the mask best adapted for meeting the various hazards from smoke, gas, and chemical fumes, with which firemen may come in contact.

There is another smaller and less complicated mask, called the "Firemen's"[3], which will protect against any of the substances ordinarily encountered in fire fighting. These masks are of the canister type and the canister may be replaced after it is used up. The Universal type the Bureau of Mines regards as safe for six hours of service, and the Firemen's mask for four hours. The canister consists essentially of a filter of cotton padding for removing particles of soot and tar, dry activated charcoal for the absorption of various organic vapors, such as carbon tetrachloride, anilin, benzine; and fused sodium hydroxide, which absorbs chlorine, hydrochloric acid, various oxides of nitrogen, oxides of sulphur, and water vapor. Then comes a layer of calcium chloride to absorb any remaining water vapor, and a substance called hopcalite, which is a mixture of the oxides of manganese, copper and sometimes cobalt. This hopcalite acts as a catalyzer, causing the carbon monoxide to take up oxygen from carbon dioxide. Finally, there is a layer of silica gel which is used to absorb ammonia fumes.

The canister of the Fireman's gas mask contains exactly the same material as does the Universal, but in smaller amounts, so that the mask cannot be used quite so long. The Fireman's gas mask is effective for four hours, and it will serve to protect against all gases, including carbon monoxide and ammonia. With this mask a fireman may work for several minutes without danger in a room, cellar, or trench flooded with illuminating gas. Moreover, the canister does not fail suddenly but gradually, so that the man wearing it, when it becomes partially exhausted, is able to escape with its help before being overcome. Another point is that of temperature. The canisters are more active when warm, so that in cold weather they should be worn under the coat to receive body heat. Careful record should be kept of the length of time each canister has been in service. Sealed canisters are now on the market so that there will be no deterioration due to exposure to the atmosphere during storage. The only portion of the canister particularly deteriorated to any extent during storage is the hopcalite, which is soon rendered inactive by moisture. As protection against carbon monoxide is perhaps the most important function of the mask, it is well to discard any mask, even though it has not been used for its full period of time, when there is any reason to believe that it has been exposed to dampness. The ideal method, of

course, would be to use a freshly filled canister every time.

One function of the mask that is of great importance is the protection against ammonia fumes. With the increase of electric refrigeration there is considerable need for this. If adequate masks had been available at the time of the ammonia leak at the Boston Arena, some months ago, one fireman's life would have been saved and others would have been protected against serious injury. An important point to remember is that ammonia fumes will attack the skin, particularly if any moisture is present on it. Therefore, it is very important in going into an atmosphere charged with ammonia to be sure that the skin and clothing are dry. It is a good plan when coming out from the fumes, if there is the least sign of irritation, to wash the skin with a half and half mixture of water and vinegar. The clothes should be changed as soon as possible. The picric acid method of treating ordinary burns is also very successful with ammonia burns.

With the introduction of the fuel oil burner there have been some very serious cellar fires with a particularly irritating type of smoke due to the presence of various distillate products of the burning oil. Such smoke also contains a considerable amount of carbon monoxide.

Those experienced in fire fighting are coming to realize, more and more, the importance of adequate ventilation, not only in determining the exact locality of a fire in a building, which is all too often obscured by dense smoke, but also from the point of view of removing, so far as possible, the serious hazards that are always present where there is smoke. While the old time methods of a wet cloth over the face, crawling along the floor, or breathing the air close to the hose line suffice to give a moderate degree of protection, with the methods at present at the disposal of the fire departments it seems a pity not to provide those men obliged to go into the most dangerous situation with gas masks that will serve to protect them against the more usual gases which they may meet.

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NEW OFFICIAL CANCER STATISTICS

Advance information supplied by the United States Census Bureau to the American Society for the Control of Cancer permits the following facts relating to the mortality from cancer to be made known at this time.

For the year 1925 and for that part of the country known as the registration states of 1900, the total number of deaths from cancer of all forms and in all locations was 34,176 in a population of 30,642,000. The crude death rate from cancer per 100,000 estimated population was, in 1925, 111.5. In 1924 it was 109.8; in 1920 it was 99.6; and in 1900, 64.

When proper allowance is made for the unequal composition of a population with reference to males and females and to persons of each age, the following so-called adjusted rates were found: 1925, 98.2; 1924, 95.1; 1920, 87.8; and 1900, 60.7. These adjustments are made to conform with what is known as the standard million of population of England and Wales.

Between 1920 and 1925 the rates for each sex below 45 years showed only slight changes, but for older age periods there was an almost continuous increase, the greatest appearing for men of 75 years and over.

In the entire registration area in 1925, the number of deaths from cancer was 95,504 in a population of 103,108,000. Statistics show that more than one-half of those who die of cancer are females, although the male population of the registration area invariably exceeds the female. Of the total deaths from cancer in 1925, 53,639, or 56.2 per cent., were females and 41,865, or 43.8 per cent., were males. Cancers of the mouth and skin showed a great excess of male deaths. There were five times as many deaths from cancer of the mouth among men as among women. Cancer of the skin was about two-thirds more frequent among the males than among females. Cancer of the stomach and liver caused nearly one-half of all the cancer deaths among males, but only about one-third of the deaths among females. Cancer of the breast and cancer of the female genital organs caused 42 per cent. of all cancer deaths among females in 1925.

FINDS ALMSHOUSES FILLED BY DISEASE

The almshouse problem, instead of being wholly one of old age, is largely one of feeble-mindedness and chronic diseases, according to a report issued by the Women's Department of the National Civic Federation, at 105 West Fortieth Street, after a survey of seventy-five almshouses in Connecticut, New Jersey, Pennsylvania and New York. Almost half of the inmates in the institutions visited were under 65 years of age, the report states.

Lack of community interest in almshouses and their inmates is held responsible for most of the unsatisfactory conditions found in the institutions visited. The survey, which was made in connection with a study of old age dependency, was directed by Miss Estelle Stewart of the Statistical Bureau of the United States Department of Labor.

Besides advocating the hospitalization of almshouses to take care of the chronic sick, the report contains a complete statement of the conditions found in the seventy-five institutions. Nearly all of them, it states, are understaffed and the majority of the buildings visited were inadequate. Congestion, in many cases, is regarded as serious.

Standards of maintenance in general are praised as being as high as the present equipment permits. Food was found abundant and wholesome and cases of wilful neglect are reported as being extremely rare. Not a single instance of deliberate abuse was found, the report says.

In closing, the report advocates the adoption of the county as the smallest unit of charity administration, the development of outdoor relief, mother pensions and the reduction of almshouse population by the encouragement of child-placing agencies.—*New York Times.*

VERMONT STATE MEDICAL SOCIETY*

ANNOUNCEMENT

THIS issue of the BOSTON MEDICAL AND SURGICAL JOURNAL inaugurates a new era for the Vermont State Medical Society. Heretofore the reports, county news, papers read at state meetings, and all other matters, have, when printed at all, been issued in various forms; sometimes as a bound volume of transactions, and at other times in one form or another of a state journal, the last publication having been the issue of the *Quarterly Bulletin*. Each and all of these forms have served the purpose well, and reflect credit upon those who have given their time and assistance to make these various publications a success.

Now, after a period of negotiations with the editors of the BOSTON MEDICAL AND SURGICAL JOURNAL, which have extended over many months, and which negotiations have been acted upon by the House of Delegates of the Vermont State Medical Society, the JOURNAL will hereafter devote space once a month for the reception of Vermont matters. In this space will be included all acceptable matters submitted by the State Society for publication. This number, or in other words, twelve issues per year, will be mailed to each member of the State Society, and without cost to the member, the expense being met by the State funds.

In this way the affairs of the State Society will be laid before a large group of readers, wherein heretofore the circulation has been confined almost entirely to the members of the State Society alone. Thus, an added incentive is placed before every officer of both State and County Societies, to introduce greater efficiency into his work, thus to be able to report work and progress.

This, together with the creation of the New England Medical Council, also makes Vermont a part of a larger unit. Although retaining her independence in all medical matters, yet by these changes and advancements, she is placed in coöperation with the sister states of New England. Single wires may be easily broken. A cable of many wires has great strength. Under this arrangement, the responsibilities of Vermont are increased. She owes a duty to contribute in every way possible to the welfare and progress of her sister states, and in turn she places herself in a position to receive from them their aid and assistance. W. G. R.

REPORT OF THE ANNUAL MEETING OF THE HOUSE OF DELEGATES OF THE VERMONT STATE MEDICAL SOCIETY OCTOBER 13TH AND 14TH, 1927

The fixed session of the House of Delegates, in connection with the One Hundred Fourteenth Annual Meeting of the Vermont Medical Society was called to order by the President of the House of Delegates, E. H. Ross, at five o'clock, Thursday afternoon, October 13, 1927, in Grange Hall, Middlebury.

The Secretary called the Roster, and on motion seconded and carried, vacancies therein were filled, making the Roster as follows:

Addison County	J. J. Ross C. H. Dean
Bennington County	L. H. Ross E. A. Tobin
Chittenden County	J. N. Jenne T. S. Brown Paul K. French P. E. McSweeney
Franklin County	C. G. Abell E. A. Hyatt F. J. Lawlis
Lamoille County	W. M. Johnstone
Northeastern County	F. E. Farmer E. H. Ross
Rutland County	H. S. Martyn C. E. Fagan C. B. Ross E. J. Rogers G. G. Marshall
Washington County	None
Windham County	J. A. Stevenson
Windsor County	A. L. Patch B. A. Chapman

Dr. Ricker gave a condensed report of the 1926 meeting of the House of Delegates of the A. M. A.

This report was accepted and adopted.

The reports of the Secretary, of the Medico-legal committee, of the Treasurer, of the Auditor, of the Publication committee, and of Necrology were accepted and adopted.

J. A. Stevenson moved that the recommendation of the Secretary as follows be adopted.

First; That the Vermont State Medical Society approve the formation of the New England Medical Council and authorize the proper constituted officers to be members thereof. (Page 6 of printed report.)

Second; That the House of Delegates select five men to be members of this Council; the President of the Society, the Secretary of the Society, and three members at large.

Third; That the Vermont State Medical Society appropriate the sum of $100.00 annually to defray the expenses of this Council. (Page 7 of printed report.)

This motion was seconded by Dr. Frank E. Farmer. The motion was carried unanimously.

J. A. Stevenson moved that the recommendation of the Publication Committee as follows be adopted.

First; That it be the sense of the Vermont State Medical Society to merge publications with the

*For list of officers see Page iii, Advertising Section.

BOSTON MEDICAL AND SURGICAL JOURNAL, which hereafter will be known as the New England Journal of Medicine.

Second; That this recommendation be referred to the Publication Committee for favorable action, and that the Publication Committee be empowered to act. (Page 19 of printed report.)

This motion was seconded. The motion was carried unanimously.

DR. TOBIN: I have been requested to bring to the House the recent reduction in doctor's fees under compensation laws, where we were allowed $100, and recently been cut to $50. In other states there is unlimited fees for compensation cases. $100 was small, and now they have reduced it to $50, which wouldn't take care of a sore finger, usually.

DR. HYATT: Under our old law, the amount which might be paid the physician and hospital, for total medical care, was $100. Under the new law the total amount of medical care is $200, but only $50 of it may be paid to the physician. As you probably all know, there was a good deal of an attempt made to have this raised by the last session of the legislature, from $100, and the greatest trouble seemed to be with the hospitals, and many times the hospitals were taking care of patients for a long period of time, and practically getting nothing. The bill, as passed, was something of a compromise, and was not done at the instigation of this Society, but by all the working men of the state. It is a better bill than the other one was.

DR. SMITH: I am not certain that I have a seat in this hall. I think the Doctor has brought up a matter that this Society should pay some attention to, and that it might well ask its Medico-Legal Committee to draft a proper amendment to this present law. Certainly Vermont is the only state that I know of where the fees for the physician or surgeon are cut down to so small an amount. This new law is a move in the right direction. In talking with various compensation companies they are more than glad to have these fees raised so that the surgeon will get proper compensation, and I think all it needs is for the medical profession of the State of Vermont to make itself heard, and bring some pressure on members of the legislature.

PRESIDENT ROSS: As I understand it, this is a matter of law at the present time, Dr. Hyatt?

DR. HYATT: Yes. Our legislature meets once in two years, and we have another session before the next session of the legislature, so that we are powerless to do anything now. A year from now is the time that this should come before our House of Delegates, and not now. I think that every man should recognize and realize that our legislature did do something for us last year. We get a little bit more out of it, except in some cases. The majority of them are cases which the $50 would cover, and we have the privilege of refusing to take care of them, and it is much easier for us to refuse than it is for the hospital, and any man called upon to treat one of these cases, when he sees that his work is going to be much in excess of $100 can easily demand of the industrial, or compensation company, a larger fee, and get it, while the hospital cannot do that.

DR. RICKER: I might say that this pamphlet which was distributed (General Laws of the State of Vt. relating to Labor, 1921), was sent to me by the Commissioner of Industries for distribution, and this question under discussion is one of the subjects contained in this pamphlet. I think that the Commissioner sent these out with a definite purpose in mind, and I hope these won't be thrown away as useless.

DR. SMITH: The insurance companies are very liberal. Where you have a case in a hospital, where it remains only two weeks, and the hospital bill does not come to $150, the company is willing to have the hospital present a bill for your services and your assistant.

DR. TOBIN: I think we ought to take under consideration the patient's bill. Most of these men coudn't pay a bill if they wanted to. If your doctor cannot get anything out of the insurance company, he can't out of the patient, and if the patient can't pay, he ought not to be compelled to go on charity for that extra amount. In looking at our own financial condition we ought to consider the patient a little.

PRESIDENT ROSS: I think this should be referred to the legislative committee.

DR. HYATT: Any of the men who are interested in this matter can get complete data in regard to our state, and other states, a comparison table, by writing to the United States Commissioner of Industries, in Washington, and those of us who are interested in this matter, it would be well to get a pamphlet from there and make comparisons.

DR. HYATT: When I came in I was told very positively not to say anything on medico-legal subjects, so I promise you I won't. However, I have another matter of insurance, which I have been interested in for some time. Two or three years ago I conceived the idea that the medical men of the state might save $50 to $100 a year if we could pool our insurance interests. I thought that a blanket policy which would cover these various insurances that we carry, might be secured at a much lower rate. I wrote to several insurance people, and got a hearing with the Aetna Insurance Co., but was unable to do anything until I came in contact with John Denner of New Jersey, and found he had succeeded in some measure. However, he is succeeding by putting these things in, one at a time, and he has just completed a group policy with the New Jersey State Medical Society for health and accident. He is now working upon a group policy for automobile insurance with the New Jersey Society. He has given me a copy of the health and accident policy which he has made with the New Jersey Society. This is too long

to read. The insurance is carried with the Commonwealth Casualty Co., of Pennsylvania, a corporation which has a very good record, and I have a letter from our Commissioner of Banking, in which he says this company has been doing business in Vermont for a number of years, since 1910. This policy is a blanket policy which covers, or may cover, any member of our State Society, or in other words anyone, who is a member of our State Society, is eligible. It provides an indemnity of $50 a week, for health, sickness, or accident.

If you will compare that with the great number of policies offered, you will find that it is practically one half. It certainly will run from 25% to 50% cheaper than most of the policies. All that is asked of us is that this Society approve this policy. We do not even have to have three members. If the Society will give its sanction to this we may have this insurance at these rates.

QUESTION: For how long a period does that pay, the total periods of disability?

DR. HYATT: This covers a period of 52 weeks, one year. I could read this whole thing to you, but it is long, and probably unnecessary, because it is practically the same thing as most of the health and accident policies.

PRESIDENT ROSS: Would Dr. Sleyster give us a word on this subject as to what is being done?

DR. SLEYSTER: I think that two of the societies have done something along this line. I think the Medical Society of Virginia has worked out an automobile insurance carrying theft and fire, and casualty features. We investigated, and the state laws seem to be framed to protect the companies rather than ourselves.

DR. LAWLISS: I move that this matter be left in the hands of the Medico-Legal Committee, with power to act if they see fit.

Motion seconded

PRESIDENT ROSS: Any discussion?

DR. PATCH: I don't see as this obligates the Society, but it is a poor precedent to authorize a thing without it is more carefully gone into. I don't understand it myself.

DR. TOBIN: If the Medico-Legal Committee investigates, that is what they are for.

PRESIDENT ROSS: It simply refers this matter to the Committee for investigation, and power to act if they see fit. Any further discussion? Those in favor of this motion will say aye; opposed, no. The motion is carried, and the matter is referred to the Medico-Legal Committee.

Dr. Jenne invited the Society to hold its 1928 meeting in Burlington.

On motion of Dr. Rogers, seconded, this motion was carried, and Burlington designated as the place for the 1928 meeting.

Dr. Jenne nominated Dr. S. S. Eddy of Middlebury for President. Nomination seconded.

Moved that nominations be closed. Motion seconded and carried.

Dr. Ross declared Dr. S. S. Eddy unanimously elected as President of the Society.

Dr. Stevens nominated Dr. Wm. G. Ricker of St. Johnsbury to succeed himself as Secretary. Nomination seconded.

Moved that nominations be closed. Motion seconded and carried.

Dr. Ross declared Wm. G. Ricker unanimously elected as Secretary of the Society.

On motion duly seconded and carried the chair appointed a nominating committee consisting of Dr. J. A. Stevenson, Dr. E. A. Tobin, and Dr. Frank E. Farmer, to report on nominees for the remaining officers and committees at an adjourned session.

Moved that the House of Delegates adjourn until 8:30, Friday morning, Oct. 14/27, to reconvene in Grange Hall, Middlebury, at that time.

Motion seconded and carried, and adjournment taken until 8:30 Friday morning.

FRIDAY MORNING SESSION

The adjourned session of the House of Delegates met at 8:30, Friday morning, Oct. 14/27, in Grange Hall, Middlebury, the meeting being called to order by the President, E. H. Ross.

For the Nominating Committee the President read the following report, which contains also the names of the president and secretary already elected by the House of Delegates.

OFFICERS

President—S. S. Eddy.
Vice-President—C. F. Dalton.
Secretary—William G. Ricker.
Treasurer—David Marvin.
Auditor—C. K. Johnson.

Councillors

1st District—T. A. McCormick.
2nd District—E. A. Tobin.
3rd District—F. E. Farmer
4th District—M. F. McGuire.

Executive

T. S. Brown, W. G. Ricker, A. L. Patch.

Publication Committee

William G. Ricker, C. F. Dalton, J. A. Wark.

Legislative Committee

C. H. Beecher, E. A. Tobin, James Hamilton.

Medical Education

S. W. Hammond (3), A. B. Bisbee (1), H. S. Goodall (2).

Necrology

L. A. Russlow, J. W. Esterbrook, H. L. Pierce.

Medico-Legal

W. N. Bryant (3), E. A. Hyatt (1), J. N. Jenne (2).

Health and Public Instruction
P. E. McSweeney, E. J. Quinn, H. F. Taylor, A. L. Patch, C. F. Dalton.

DELEGATES

Maine—F. E. Farmer, St. Johnsbury.
New Hampshire—B. A. Chapman, Springfield.
Massachusetts—Charles Buchanan, Bennington.
Connecticut—R. E. Smith, Rutland.
Rhode Island—C. S. Leach, Brattleboro.
New York—J. A. Stevenson, Chester.
A. M. A.—William G. Ricker, St. Johnsbury.
Alternate A. M. A.—C. H. Beecher, Burlington.

HOUSE OF DELEGATES

President—W. M. Johnstone, Morrisville.
1st V.-P.—O. N. Eastman, Burlington.
2nd V.-P.—E. R. Clark, Castleton.
Secretary—G. M. Sabin, Burlington.

NEW ENGLAND MEDICAL COUNCIL

S. S. Eddy, William G. Ricker, T. S. Brown, E. H. Ross, E. A. Hyatt.

Anniversary Chairman—W. N. Bryant, Ludlow.

Dr. Patch moved that the report of the Nominating Committee, as read, be accepted and adopted. Motion seconded, and carried.

Moved, seconded, and motion carried, that final adjournment be taken.

Adjournment declared by the President.

INTRODUCTION OF DR. M. H. EDDY BY DR. T. S. BROWN, THE PRESIDENT OF THE VERMONT STATE MEDICAL SOCIETY 1926-27†

There is a little story which goes something like this: there were two philosophers who were looking for the fountain of perpetual youth, and one of them sought his laboratory, practically isolating himself from all the rest of the world, until one day he looked into the glass, and there he saw such a startling sight that he lost his mind, because in his eyes, he was nothing but weariness and hopelessness. The other one went out and mingled with all the people with whom he could come in contact, carrying always a smile and a word of cheer, carrying helpfulness to all with whom he came in contact, and this man, though his hair turned white, still retained, always, the spirit of youth. He it was who had found the spirit of youth.

It is said, I believe in the Bible, that the length of a man's life is three-score years and ten, and if, by reason of strength, they be four-score, yet shall their strength be labor and sorrow. We are in the habit of thinking of everything in the Bible as being more or less true, but in the instance of the man who is to welcome us today, he has lived the four-score, and ten, and five more, and they have not been labor and sorrow, but pleasant for himself and for all with whom he has come in contact. The man who is to bring you the welcome of the Addison County Society is now in his ninety-fifth year, and yet he has retained always the spirit of youth, carrying about his smile and his word of help in his ministrations to those who were sick and those who were well. He needs no introduction, although it gives me great pleasure to present Dr. M. H. Eddy, President of the Addison County Medical Society.

†Delivered at the Annual Meeting in Middlebury, October 13, 1927.

EXPERIENCES IN MEDICINE*

BY DR. M. H. EDDY, MIDDLEBURY, VERMONT

President Addison County Medical Society

Mr. President and Members of the Vermont State Medical Society, in behalf of the Addison County Medical Society I most cordially welcome you here to Middlebury this year. Heretofore, I think the members of the Addison County Medical Society have been entertained in different parts of the state. This is the first time, I believe, that we have been honored with this Vermont organization, and we are glad and pleased to have you with us.

You have asked me to tell you something of my experiences in medicine and of the practice of medicine as it was when I began practice. I graduated from the medical school sixty-two years ago. To many of you that was a long time ago—not so long to me. About the first of May, 1865, thirty-three men (Dr. Henry Jackson, Dr. Perrin and myself being among them) under the tutelage of seven instructors graduated from Burlington. It was not then connected with the University of Vermont but the school was managed by Dr. Thayer and Dr. Carpenter. Thayer taught Anatomy and Surgery and Carpenter, Theory and Practice. They employed to assist them, Dr. Stiles, on Physiology; Perkins on Obstetrics; Conant, on Surgery; Seely, in Chemistry; and Ordranceau, Jurisprudence. I wish to give a word of praise to the men that were our instructors. They were intelligent and skillful men in those days.

Just before I entered practice there had been three medical schools in the state. One at Castleton, one at Woodstock and one at Burlington. The Woodstock school ceased to exist in 1856, and the Castleton school closed its doors in 1861. The College buildings where we attended classes was at the south end of the campus, opposite where your new medcal building is now located. I believe that building is still standing. There we attended lectures. We had no bedside training in those days. A few cases came in to the college before the class and were examined there and prescribed for. Also some few surgical cases were operated upon there. These did not include any so-called major operations. Ether was used, but they knew nothing about keeping wounds sterile.

*Address delivered before the Vermont State Medical Society, Middlebury, Vermont, October 13, 1927.

I began the practice of medicine sixty-two years ago, the first of last April. That statement may seem to you a discrepancy with what I said a minute ago, but Dr. Zachius Bass (Dr. Bass was born in 1791 and died in 1881) called me to Middlebury a month before I graduated, to assist him.

At that time there was not a hospital in the State of Vermont, and no trained nurses. No instruments of precision to aid in diagnosis, to speak of, no fever thermometers. Stethescopes were not in use. No knowledge was had of blood pressure, so of course there were no blood pressure machines. I remember the first thermometer I ever had, given me in 1867, by the physician who came to Middlebury to care for the sick child of Henry Holt, who was summering there. We were not instructed in urinalysis in the colleges in those days. That came a little later, or about that time. There was no State Laboratory or other laboratories. The germs of disease had not been discovered. There were no analyses made of the waters we drank or of milk, none of the many tests for disease such as are done today.

There has been great advance along the line of the knowledge and science of medicine since I first graduated. I dare affirm that there has been more improvement and progress in the knowledge and science of medicine since then than there had been in all time prior to that date. The different germs of disease have been discovered within the period of my practice. And the discovery of ether was within my memory. All the development of surgery as it is today has been made possible by these two discoveries.

We used to hear much in those days of the science and art of medicine. Nowadays we hear less of the art of the practice of medicine, perhaps not enough. In those days we had to study our patients more. In those days, too, the doctor had to be a competent individual, relying solely on himself. If he had a difficult case to treat *he* had to treat it. There were no specialists for him to consult. Their knowledge as well as their means were limited. They did consult with each other, which was the only resource they had. They made their diagnosis studying their patients by means of their eyes, their finger ends and good common sense. They prescribed according to their best judgment, which was good, considering the means they had for judging.

There were no telephones, of course, then; no automobiles, but we had some good horses. No such roads as you have now, but narrow roads, clay mud and deep ruts. Often the wheels of my wagon would look like cart wheels—so filled with mud. On the road to East Middlebury, which is now one of the main roads in the state, more than once I have left my wagon by the side of the fence because I could not go farther with it, jumped astride my horse and ridden him the rest of the way to see my patient.

Sixty years ago the prevailing diseases that proved the most unmanageable and fatal were called consumption and inflammation of the bowels. In the former disease the patients would gradually decline for a year or more, and death would close the scene. Some acute forms would not endure that length of time. Cod liver oil and hypophosphites were recommended and given. Too many died because treatment, with little effect, and care were not started early enough. The cases formerly called inflammation of the bowels were, I believe, mostly appendicitis. Some of the milder cases, with proper treatment, *did* get well, but most of them died within two weeks. Now, you operate on them in the first stages of the disease and most of them make good recoveries. Typhoid fever and pneumonia were prevalent. I remember hitching my horse in front of President Labaree's and making calls on typhoid patients in five houses right in that neighborhood. Most of the typhoid cases recovered, but some were of a virulent type and died even with the best of treatment. Now we have an antitoxin to prevent having typhoid fever. Note the difference between the number of deaths from this disease in the Civil War and that in the World War.

Pneumonia is more prevalent today than it was sixty years ago, and you lose more cases than they did then. There has been a change in the type of pneumonia. Cases of pneumonia were less complex. More of the lobar type and less of the broncho-pneumonias.

A little later we had diphtheria to contend with. I have worked over cases of diphtheria for five or six nights in succession to cure them, and I did save enough so that I had a reputation for curing diphtheria. I did it with chlorine gas. Now antitoxin, promptly given, saves practically all of our cases.

The antitoxins have developed to be a most important factor in controlling and curing many of our diseases.

In many of the diseases, in fact in most, we have learned that to recognize them early and start treatment early offers the larger hope of recovery. It is so of tuberculosis. It is so of appendicitis, and no less true of carcinoma. I have great respect for the old adage, "An ounce of prevention is worth a pound of cure." One of the greatest obstacles in the way of helping patients is that we don't find out their disease soon enough. Too many wait until they are suffering so that they have to, before seeing the doctor. That should be remedied. I believe it would be a good practice if everybody would consult a competent physician once a year and have a thorough examination. Find out if disease is lurking in the system. Preventive medicine has seen a great development in recent years. In earlier years they were careless of life, wasteful

of life, and economical of property; now, we are growing economical of life and extravagant of property.

I could enumerate many instances in my life which, compared with the practice of the present day would show that we have made great improvement. And still we are advancing. Yet the physicians and surgeons of that earlier period deserve an abundance of praise. There were some competent, skillful men among them, and with their limited means they did good work.

Of all the professions in life I think there is none more noble and beneficent than that of a competent, upright and conscientious physician. He is consulted by all classes and creeds. His counsel is reliable. His influence is admirable. He is entrusted with the joys, the sorrows and the secrets of his patients, and enjoined to keep them locked up in the secret chambers of his soul.

ADDRESS OF WELCOME*

BY HONORABLE JOHN E. WEEKS
Governor of Vermont

Mr. President and Members of the Vermont State medical world:

Correspondence with two of the officers of the Society has been somewhat complex, and I didn't know just where I was to come in until I happened to see the program. I am pleased indeed to meet you, pleased indeed to welcome you to Middlebury, one of the best towns in the State. We are glad indeed that you have thought well enough of Addison County to come here for the day and tarry with us for the morrow, and we trust that your stay will be all that you expect it will be, and that you will go back to your scenes of labor with renewed courage and thought for the future of Vermont.

You have listened to a remarkable address from a remarkable man, and Middlebury possesses the man. I do not go back in history quite as far as Dr. Eddy does, but I remember him so well in his active life, back in the years gone by, and I remember, Doctor, the good horses you drove, and that love for a horse has gone down in history to the next generation, for Dr. S. S. Eddy believes in a good horse.

Now it is true, I think, that this Society and you men who make up the Medical Society of our State are in many ways the most important men of our State. I won't except any other function in life, as compared to the medical men of our State. The Doctor has told you about those early experiences, without hospital privileges or accommodations, and as we go back in history and in memory, and reminisce, we wonder how we did live back in those days, without any of these present accommodations, and the knowledge that we have today in your authority and your practice. Yes, we do wonder, but some survived, and I am one of them, because, as I look into your faces I presume to say that I can go back nearly as far, perhaps a little farther than most of you, and nearly as far as any one except Dr. Eddy, and I remember those days, and what it meant to the physicians of this community and of the State of Vermont; the hardships that the physicians endured, not wholly for what they received, but for the relief of their fellowmen. I remember so well the townships in our own county and the resident physician. To-day less than half of these towns have a practising physician, and I wonder, as I think of it, what that means to our State. I believe that it has its effect, the same as the concentration of the rural school system of our State. I hope, if I am successful in anything in my administration, I may be successful in an endeavor to restore some of those rural conditions in our school work, because I believe that, as no other one department of life, has depopulated the agricultural regions of our State. To-day it is a problem, as you well know, for a laboring man living in the small town, to have the attendance and the help of a physician. Your expenses have mounted up, the same as in every other department in life, and you cannot afford to do as the physician once did; you cannot travel as the physician once travelled, and the poor man back in the country districts is really,—if I may use that expression,—"up against it". How can he pay you a reasonable visitation fee? How can he procure a nurse of today, who is so much needed in this work? It is simply impossible, because he cannot earn money enough to support his family and meet the emergency. Now, there, to my mind, in this State, is a real problem confronting us. We believe in our State, as Vermonters, and we believe in the possibilities of our State, but we have that and other handicaps that I believe are detrimental to the country town, as we now have conditions facing us. I am not bringing this to your attention thinking that you can, in this meeting, devise any plan to relieve it, but it is a real problem, and how we are to sustain ourselves, as we look upon that today, and meet that, is a problem. I do not blame you, no one can blame the present generation for locating in the larger towns and cities, but on the other hand we need the laboring class. We cannot get along without them, and we need them in the rural districts, and today, in the hill towns of this county, if an emergency comes, they must go to Middlebury or Vergennes or Bristol, most likely, to get relief. But, gentlemen of the Medical Society, as I said to start with, you are performing a mission that no other department in life performs. We simply could close some of the departments of life, and still get on, but we cannot close yours, and live happily, because to you we come. Upon you, and your expert advice we depend, and we cannot get along without it, and we are so thankful that so many of you are willing to stand in the breach, of this emergency,

*An address delivered at the opening of the meeting of the Vermont State Medical Society at Middlebury, October 13, 1927.

and do for our people what you are daily doing, relieving suffering and helping back to manhood and womanhood, physically, the population that we have. Having such an opportunity, I believe that that opportunity is next to the minister's, and in many ways exceeds the minister's opportunity, because you come in closer touch with the family life, closer touch with the individual life, and to you we look for that help that you can give, both bodily and mentally, also spiritually, because that opportunity is in your grasp, and so we gladly come to you and tell you the whole story, and you in return prescribe the remedy. We take your medicine, we believe in it, and that goes a marvellous journey towards recuperation. So, men, you are doing an honorable work for the State. No other men are doing as much, they cannot do as much, because they cannot function as you can function, and are functioning, and all praise and glory to you, because you have too little of it already. But, gentlemen, some of that is coming to you after your services are ended, because no one is entitled to affection and greater love than the man who serves, and the service that you are performing in life excels and exceeds all other service, because it is within your grasp, and within you that a determination and ambition to relieve the suffering, to restore to health the sick, and more than that, your example of devotion carries with it into other departments of life those standards that build for our State, for our community, and for our commmonwealth.

HEALTH CONDITIONS IN VERMONT DURING NOVEMBER, 1927

COMMENT has been frequently made referring to the fact that following the Vermont flood, no epidemics of communicable diseases appeared in the state, and particularly that not a single case of typhoid fever was reported in the state during the entire month of November. This condition undoubtedly resulted from a number of factors. First, and of great importance, Vermont had been unusually free from communicable diseases, and particularly typhoid fever, for a number of months previous to the flood which occurred November 3 and 4, 1927. For example, during the entire year 1926, there were only 35 cases of typhoid fever and up to November, 1927, only 32 cases had been reported in the entire state, all of these being scattered in isolated locations. The State Board of Health, therefore, had the situation well in hand at the time of the flood.

The second factor which undoubtedly operated to prevent typhoid fever was the fact of the rapid rise and flow of the flood waters. So quickly did the volume of water attain its height that the watersheds were very rapidly scoured of all debris, and the dilution became so great that even if supplies were invaded, they obtained some protection from the very fact of the enormous quantity of flood water.

The third factor was, in a way, a part of the first mentioned, viz., the fact that the water supplies of the state had been supervised by the State Board of Health for many years, and that with but one possible exception, there was not a single polluted water supply in the entire state. Further than this, the towns in which public water supplies were used had been well educated for years in the necessity for keeping water supplies uncontaminated. As a result of this, those in charge of such water supplies in various towns immediately jumped into action and took such precautions as were immediately available to protect their citizens from polluted water.

As a final factor in this preventive work must be mentioned the activity of the State Board of Health in getting out supplies of anti-typhoid vaccine and assuming control in the more afflicted communities. Naturally, the emergency caught the Department of Health without any great supply of vaccine, so that the first necessity was to secure a sufficient quantity for distribution about the state. This was accomplished through efficient coöperation of two biological houses, one of which sent a special messenger from New York to Burlington with a large supply of material. The problem then was to get this material to the doctors in the afflicted sections. Fortunately the Mayor's Committee of Burlington had organized and a transportation service branch including many drivers who were willing to risk both their cars and their lives to distribute the Board of Health supplies. It was largely through the efficient work of these men, picking their way over mountains and through almost impassable roads that typhoid vaccine was made available in a large number of the stricken districts.

And now comes possibly the most important factor of all. Without the coöperation of the doctors practising in the state, and particularly in the small communities, very little could have been accomplished. But these men proved their mettle. Many of these practising physicians had their own homes washed out with complete destruction of their furniture and office supplies, but this did not stop their work. As soon as they could obtain the necessary material, they set up temporary offices in any kind of a place available and made trips which many would have considered impossible. Incidentally, one doctor at his own expense had a foot-bridge made across a river where the main bridge had been carried away so that he could get to patients in the next town.

The inspection and supervision of public water supplies was accomplished by the assistance of two engineers from the Public Health Service and a group of six men furnished by Wallace & Tiernan Co., of Newark, N. J. Both of these organizations responded in record time to the call

of the State Board of Health. By telephone, telegraph, or any other means available, the various water supplies of the state were checked over, and in any case where trouble seemed to have occurred, a sanitary engineer was at once dispatched to take charge of the situation. This necessitated some perilous rides but the trips were somehow accomplished and reports sent back to the central office in Burlington.

The most badly stricken community was undoubtedly the Town of Waterbury. Here, in addition to the washout of houses and stores, the water main broke near its source and the sewers became clogged with debris. In this community a representative of the State Board of Health, Dr. F. S. Kent, took entire control, being assisted by officers and men of the Medical Corps of the U. S. Army detailed from Fort Ethan Allen. Drastic orders executed by military authority were necessary in this place and, owing to lack of sewers, the citizens for several days were obliged to use public latrines, except in such cases where collection of fecal matter was made daily by the town authorities. It was found necessary to install a complete chlorinating apparatus to take care of the water supply, and this was kept in operation until all danger had passed.

In order to accomplish the above work, the central office of the State Board of Health at Burlington designated branch offices in different parts of the state, and principally in charge of members of the State Board of Health. These offices acted as headquarters and this arrangement undoubtedly facilitated the speed with which the preventive measures were carried out. That results of all this work are satisfactory is naturally a source of pleasure to those who put in the long hours of work during the emergency, but such results could probably never have been obtained if preparation had not been made over a long series of years whereby, when the emergency came, the organization was found to be in working order and the stage set for needed action.

C. F. D.

VERMONT MORTALITY STATISTICS: 1926

Washington, D. C., January 11, 1928. The Department of Commerce announces that the 1926 death-rate for Vermont was 1,480 per 100,000 population as compared with 1,458 in 1925. This increase in 1926 is more than accounted for by increases in the death rates from pneumonia, all forms (from 95 to 123 per 100,000 population), influenza (from 49 to 76), tuberculosis, all forms (from 71 to 80), and whooping cough (from 5 to 9).

Decreases in 1926 are shown in the death rates from nephritis (from 132 in 1925 to 120 per 100,000 population), diphtheria (from 7 to 4), and automobile accidents (from 16 to 13).

Cause of death	Deaths in Vermont			
	Number		Rate per 100,000 estimated population	
	1926	1925	1926	1925
All causes 1/	5,215	5,137	1,479.7	1,457.6
Typhoid and paratyphoid fever	6	10	1.7	2.8
Malaria	1	-	0.3	-
Smallpox	-	-	-	-
Measles	11	-	3.1	-
Scarlet Fever	18	15	5.1	4.3
Whooping cough	32	17	9.1	4.8
Diphtheria	14	26	4.0	7.4
Influenza	268	171	76.0	48.5
Dysentery	2	1	0.6	0.3
Erysipelas	10	9	2.8	2.6
Lethargic encephalitis	2	3	0.6	0.9
Meningococcus meningitis	5	4	1.4	1.1
Tuberculosis (all forms)	282	251	80.0	71.2
Of the respiratory system	226	203	64.1	57.6
Of the meninges, central nervous system	29	19	8.2	5.4
Other forms	27	29	7.7	8.2
Syphilis 2/	44	36	12.5	10.2
Cancer and other malignant tumors	471	480	133.6	136.2
Rheumatism	12	17	3.4	4.8
Pellagra	3	2	0.9	0.6
Diabetes mellitus	77	76	21.8	21.6
Meningitis (nonepidemic)	12	20	3.4	5.7
Cerebral hemorrhage and softening	485	530	137.6	150.4
Paralysis without specified cause	5	10	1.4	2.8
Diseases of the heart	969	961	274.9	272.7
Diseases of the arteries, atheroma, aneurysm, etc.	182	177	51.6	50.2
Bronchitis	45	33	12.8	9.4
Pneumonia (all forms)	435	334	123.4	94.8

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Cause of death	Deaths in Vermont			
	Number		Rate per 100,000 estimated population.	
	1926	1925	1926	1925
Respiratory diseases other than bronchitis and pneumonia (all forms)	32	28	9.1	7.9
Diarrhea and enteritis (total)	62	65	17.6	18.4
Diarrhea and enteritis (under 2 years)	44	48	12.5	13.6
Diarrhea and enteritis (2 years and over)	18	17	5.1	4.8
Appendicitis and typhlitis	61	70	17.3	19.9
Hernia, intestinal obstruction	54	42	15.3	11.9
Cirrhosis of the liver	20	27	5.7	7.7
Nephritis	424	464	120.3	131.7
Puerperal septicemia	16	15	4.5	4.3
Puerperal causes other than puerperal septicemia	32	36	9.1	10.2
Congenital malformations and diseases of early infancy	298	338	84.6	95.9
Suicide	48	49	13.6	13.9
Homicide	8	2	2.3	0.6
Accidental and unspecified external causes (total)	272	279	77.2	79.2
Burns (conflagration excepted)	13	6	3.7	1.7
Accidental drowning	24	28	6.8	7.9
Accidental shooting	7	9	2.0	2.6
Accidental falls	85	82	24.1	23.3
Mine accidents	-	-	-	-
Machinery accidents	8	10	2.3	2.8
Railroad accidents	25	19	7.1	5.4
Collision with automobile	4	1	1.1	0.3
Other railroad accidents	21	18	6.0	5.1
Street-car accidents	2	1	0.6	0.3
Collision with automobile	-	-	-	-
Other street-car accidents	2	1	0.6	0.3
Automobile accidents (excluding collision with railroad and street cars)	45	56	12.8	15.9
Injuries by vehicles other than railroad cars, street-cars, and automobiles 3/	7	12	2.0	3.4
Excessive heat (burns excepted)	1	2	0.3	0.6
Other external causes	55	54	15.6	15.3
All other defined causes	480	521	136.2	147.8
Unknown or ill-defined causes	17	18	4.8	5.1

1/ Exclusive of stillbirths.
2/ Includes tabes dorsalis (locomotor ataxia) and general paralysis of the insane.
3/ Includes airplane, balloon, and motorcycle accidents.

AVERAGE LIFE SPAN RAISED TO 59 YEARS

The average span of human life has increased from 21 years during the Sixteenth Century to 59 years for the Twentieth Century, according to compilations made by the Pennsylvania Department of Health, made public by the United States Public Health Service on December 23.

The comparison is based on historical research, it was stated orally at the Public Health Service, and shows that during the period 1501 to 1600 the average age length of human life in Geneva was 21 years, and that during the intervening centuries up to the present, it has gradually increased. In 1919-20, in the State of Wisconsin, the average length of life was 59 years and is accepted as a criterion for the world as a whole. It is shown in the compilation that from the Sixteenth Century to the Seventeeth Century the span of life increased from 21 to 26 years, thence the following century to 34 years and gradually upward.

According to the Surgeon General of the Public Health Service, Dr. Hugh S. Cumming, steady improvement of living conditions, and the development of medical science is evolving methods of combatting and controlling disease prevalence, all have had the tendency of increasing longevity.

It is reasonable to believe, Dr. Cumming said, that the span of life will continue to increase with the solution of present problems confronting medical science. The full text of the compilation made by the Pennsylvania Department of Health follows:

1501-1600, Geneva, 21 years; 1601-1700, Geneva, 26 years; 1701-1800, Geneva, 34 years, 1801-1883, Geneva, 40 years.

1789, Massachusetts, 35 years; 1855, Massachusetts, 40 years; 1893-97, Massachusetts, 55 years.

1900-02, Philadelphia, 44 years; 1909-11, Philadelphia, 47 years; 1919-20, Philadelphia, 54 years.

1919-20, Pennsylvania, (males), 53 years; 1919-20, Pennsylvania, (females), 56 years.

1919-20, Wisconsin, 59 years.—*United States Daily.*

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 13561

BACKACHE AND NOSEBLEEDS

MEDICAL DEPARTMENT

A Canadian male nurse of forty-seven entered the hospital October 11 for study. The chief complaint was pain in the small of his back.

For three weeks he had been feeling tired. He had continuous dull headache which lasted until a week before admission. His eyes felt sore to touch. He lost appetite and had no energy. Ten days before admission he went on a motor trip for three days, feeling rather ill all the time. Once during the trip he took some aspirin and then had a drenching sweat. For a week he had been in bed, with chilly feelings off and on and dull ache in the small of his back all the time, aggravated by motion, at times radiating down his left leg. His temperature was low in the mornings and about 100° in the afternoon. He slept badly. He had somewhat regained appetite. He urinated more often than usual by day and four to five times at night. He had been drinking large amounts. For the past four days he had had intermittent nosebleeds.

One brother died of heart trouble.

The patient had frequent sore throats. Two years before admission he had an abscessed tooth, a sore throat which lasted three months and pneumonia. A year before admission he was inoculated for typhoid. A month before admission the tooth abscess flared up again. His habits were good. His usual weight was 180, his present weight 173.

Clinical examination showed a well nourished, sick looking man, slightly clouded and slowed mentally, tossing about with some muscular twitching. The lips were pale. The nostrils showed some blood crusts. There was slight pyorrhea. The tongue showed slight tremor. The apex impulse of the heart was not found. The left border of dullness was 11 centimeters from midsternum, 2 centimeters outside the midclavicular line, right border 3 centimeters to the right, supracardiac dullness not made out. The action was regular. The sounds were of good quality. The pulmonic second sound was greater than the aortic second. At the apex there was a blowing systolic murmur, and a diastolic, possibly transmitted from the aortic area. Along the left border and in the aortic area was the loudest murmur, a musical blowing diastolic replacing the second sound. Corrigan and pistol-shot pulse. Blood pressure 150/60 to 120/60. An electrocardiogram showed normal rhythm, rate 100. The abdomen was negative. There was extreme pain on motion, referred to the lower lumbar spine. The spine was splinted by voluntary spasm. There was no tenderness. The fingers showed slight tremor. The pupils were normal. The reflexes were all equal and hyperactive. There was bilateral ankle clonus; no Babinski. Kernig was present on the left, slightly suspicious on the right. The skin of the abdomen and right arm showed four or five red spots a millimeter in diameter, not disappearing on pressure.

Amount of urine 38 to 130 ounces. Urine at entrance cloudy, specific gravity 1.018, no albumin or sugar, 6 to 10 leukocytes per field, negative for typhoid. Five later specimens were cloudy, specific gravity 1.010 to 1.019, two specimens alkaline with the slightest possible trace of albumin, two showed 10 to 100 leukocytes. Renal function 20 per cent. Blood: 4,600 to 2,500 leukocytes, 45 per cent. polymorphonuclears to 68 per cent. (after transfusion), hemoglobin 60 to 35 per cent., reds 3,260,000 to 1,900,000. Smear at entrance normal, October 27 one endothelial leukocyte, October 29 four atypical mononuclears similar to endothelial leukocytes but not vacuolated, reticulocytes 6 per cent., color index 84. Non-protein nitrogen 24 milligrams. Icteric index 7 to 4. November 2 bleeding time 3 minutes, clotting time 6 to 11 minutes, retraction normal. Fragility test: hemolysis began at 44, complete at 34. Wassermann negative. Widal negative. Two stools negative.

Temperature 99° to 103°, with one rise to 104° November 10. Pulse 78 to 145, after November 6 not below 100. Respirations normal until October 29, afterwards 20 to 33, with a terminal increase to 40.

The day after admission the patient was slightly cyanotic. He complained only of pain in the back. The pupils were small and reacted very little. There were pea-sized left posterior cervical glands. The skin was yellowish. There was pain in the back on Kernig, more marked on the left. October 16 there was a fresh crop of purpuric spots on the chest and face. The temperature and pulse were both elevated.

October 17 a neurological consultant reported: "I do not find evidence of organic pathology of the central nervous system. He has reflex excitability. . . . I believe his neurological symptoms secondary to his medical condition. I see no contraindication to a lumbar puncture. I doubt if it would give positive evidence." A lumbar puncture was done in the third to fourth lumbar space. It was negative.

By the 18th the back was more comfortable. Another consultant found the spleen enlarged. On October 20 a tourniquet brought out multiple petechiae on the arm. October 23 there was a

return of the back pain. October 24 an orthopedic consultant thought it was not orthopedic in origin, and suggested that it might be due to an intrapelvic condition.

October 26 600 cubic centimeters of blood was transfused. Two days later the patient had much back pain and looked wretched. By the 29th the front of his body was covered with petechiae, some of them arranged in hollow circles and others discrete. By November 3 the eruption had largely faded. The patient failed steadily. November 10 there were coarse and medium consonating râles at both bases behind and bronchial breathing at the left base with change of position. X-ray showed diffuse mottling involving the entire lung field on each side. The outline of the diaphragm was visible on both sides and appeared to be normal in position. November 12 the patient complained of oppression in the chest with "gas pressing on the heart." He was extremely nervous and restless, requiring over a grain of morphia and two doses of 1/150 grain of scopolamin. He spat up occasional mucoid blood clots and November 15 was spitting up much frothy blood. Another transfusion of 500 cubic centimeters of blood was done with questionable temporary benefit. The chest filled with moist râles. November 16 he died.

Discussion

BY RICHARD C. CABOT, M.D.

NOTES ON THE HISTORY

There is nothing alarming about a sweat following aspirin. Aspirin often does that.

Of course at his age there are all sorts of causes for nosebleed. Late in life it is often due to hypertension.

His brother's heart trouble might have been due to hypertension. It generally runs in families.

NOTES ON THE PHYSICAL EXAMINATION

That is the typical aortic diastolic murmur, best heard along the left lower sternum and replacing the second sound.

These red spots are evidently not of the rose spot type, but subcutaneous hemorrhages presumably.

I suppose they made a culture for typhoid fever.

On the whole I do not see any good reason to suspect the kidney.

The blood shows essentially normal findings.

The chart could go perfectly well with typhoid. The next point is the pulse. It is relatively slow, 90 to 100, as it often is in typhoid.

The skin was yellowish, but the conjunctivae were not, as I understand it.

The lumbar puncture was negative. In other words, there is no evidence of meningitis.

Doubtless because of his purpura they transfused him.

DIFFERENTIAL DIAGNOSIS

I take it we all believe he died of an infectious disease. We have to find out from what the infection is. I see no reason to go back on the formula which I have been using for a good many years, that is, when you have a chart like this, with nothing definite to prove what the cause of the fever is, nothing definite on physical examination, it usually turns out to be typhoid fever, tuberculosis, or sepsis. Therefore I am going to discuss those three.

As to typhoid, the chart will do perfectly well. The blood count will do perfectly well. The anemia can perfectly well be accounted for by typhoid. He is a hospital nurse, who might easily have caught typhoid from a patient. He has an enlarged spleen. Did he have much headache? Yes, he has had enough to be characteristic of typhoid. What are the points against typhoid? In the first place the character of the eruption is not what we expect, although many cases have been reported with hemorrhagic eruption. Still it always worries you in your diagnosis. Then his heart murmur cannot be explained by typhoid. We should have to make a supplementary diagnosis. There is no question in my mind that he has an organic lesion in the aortic valve, either acute or chronic, with regurgitation. The pain he complains of is not at all the pain one expects in this stage of typhoid. One of the complications in late typhoid is a spondylitis, infectious spondylitis, which gives a great deal of trouble in convalescence. But I do not remember a typhoid spondylitis that gave as much pain as this while the patient was in bed. The hypersensibility of reflexes seems to me neither for or against typhoid. As to the fact that he has no Widal or blood culture we can only say that not every typhoid case shows either of them. The description of the mental side of the case is a perfectly good account of what one finds in typhoid.

As to tuberculosis, of course it would have to be the miliary form starting from some unknown earlier focus. The chief point against it is that such a tuberculosis generally involves the meninges, and we have a negative puncture fluid. The leg and neck signs almost always appearing in meningeal tuberculosis are not there. The X-ray as far as I know would go perfectly well with miliary tuberculosis and is the chief point in its favor. Of course it would not account for the heart murmur. I think it is chiefly the heart murmur which inclines me more to sepsis of endocardial origin than either of the other two things I have mentioned.

If we make a diagnosis of subacute bacterial endocarditis I do not see anything that cannot be acounted for. It is true we have no positive blood cultures, and we can not be sure of that

diagnosis without a culture. We have a lot of little red spots. The heart murmur could go well with it. We have nothing in the temperature or the rest of the clinical picture that is against it. The low blood count is the most difficult point. I do not remember having seen a case of bacterial endocarditis with so low a blood count.

DR. MALLORY: There have been none in this hospital with one as low as this.

DR. CABOT: My impression seems to correspond. Nevertheless we have had them with low counts, so that although there are points against any one of these three diagnoses, I think there are fewer points against subacute bacterial endocarditis than any other. I think that is what it is.

Let us run over other possibilities outside of the classical trio. What about typhus? It can produce a hemorrhagic rash. It can give such a fever as this, although rarely lasting so long, ordinarily finishing up in about seventeen days unless there are complications. Typhus gives a higher blood count. It would not account for the heart murmur. It is very uncommon in this country and especially in this race. We have none of the symptoms referred to the eyes, which we often have in typhus. His mental condition is not so deeply clouded as it usually is in typhus. On the whole I think we can rule it out.

Can it be a primary blood disease—a primary purpura? I do not remember such a case with such a persistent fever. It is news to me if we can have such a persistent fever as that with a primary thrombopenic purpura. Then the purpuric spots are pretty small. We generally expect to see more blood from some surface of the body before we are ready to make that diagnosis. The low white count on the other hand goes very well with thrombopenic purpura. That is what you would expect, a leukopenia, and an enlarged spleen would go with that. But it is unusual to have this type of disease show itself for the first time at his age. Of course it would not account for the heart murmur, and that plus the fever on the whole incline me against purpura, although I see rather tempting evidence in its favor.

That is as far as I can go.

A STUDENT: If his inoculation against typhoid was still good would he not have a positive Widal now?

DR. CABOT: Not necessarily. We have no standardization for that yet to tell us how long a Widal persists.

A STUDENT: Do you expect typhoid despite vaccination? I think the army experience was that it almost wiped out typhoid.

DR. CABOT: It is somewhere near that. I had a case in my own household that had been vaccinated. We isolated the typhoid bacilli in that case. It is rare. It was extremely rare in the United States army.

A STUDENT: Would the nosebleed go with subacute bacterial endocarditis as well as with typhoid?

DR. CABOT: Yes.

A STUDENT: How do you explain the pain in the back?

DR. CABOT: I do not explain that. I do not know what it is.

A STUDENT: Could his heart murmurs be due to anemia?

DR. CABOT: I think not. It is true that we do have occasional diastolic murmurs in anemia. I have never seen one that affected motions of the peripheral vessels, as this does, due to anemia alone. I am betting that there is a real heart lesion there.

A STUDENT: Would you consider scarlet fever?

DR. CABOT: We have nothing like scarlet fever except the fever.

A STUDENT: We have the fever, the signs in the kidney and the petechiae. The only thing missing is the high blood count, and you are considering bacterial endocarditis despite a low blood count.

DR. CABOT: This is not at all a characteristic rash. We have no characteristic throat symptoms. I have never seen so long a fever as this without obvious complications with scarlet fever.

A STUDENT: Could you consider Rocky Mountain tick fever?

DR. CABOT: You might, if you knew more about it than I do. I never saw a case. One ought to have pretty good evidence of being exposed. I never heard of a case in this part of the country.

A STUDENT: Is it characteristic of the petechiae to break out with a tourniquet?

DR. CABOT: It is perfectly true that you can get petechiae from tourniquet without disease, but they are more likely to occur if you have weakness in the vessels or trouble in the clotting of the blood.

A STUDENT: What else besides miliary tuberculosis would give him that X-ray picture?

DR. CABOT: Bronchopneumonic foci such as you could have with a bacterial endocarditis would.

A STUDENT: How about the sore eyes?

DR. CABOT: I can not make anything of that.

A STUDENT: Meningitis?

DR. CABOT: No, I think it has no connection.

A STUDENT: Could you explain the leukopenia on the fact that the disease had progressed so far near the termination that the leukocytes had been overcome?

DR. CABOT: That is about the best thing you can say.

A STUDENT: Is that characteristic?

DR. CABOT: No.

A STUDENT: Piney* describes subacute bacterial endocarditis as characterized by leukopenia with a low polynuclear count.

DR. CABOT: That as the usual thing?

A STUDENT: Yes: characteristic of it, he says.

DR. CABOT: I should have to differ. I never heard anything like that.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Subacute bacterial endocarditis.
Bronchopneumonia.

DR. RICHARD C. CABOT'S DIAGNOSIS

Subacute bacterial endocarditis.
Possibly chronic endocarditis of the aortic valve with stenosis and regurgitation.
Bronchopneumonia.

ANATOMIC DIAGNOSES

1. *Primary fatal lesions.*

Subacute bacterial endocarditis, streptococcus viridans.
Aortic stenosis and regurgitation.
Mycotic aneurysm of the aorta.

2. *Secondary or terminal lesions.*

Central necrosis of the liver.
Acute hemorrhagic cystitis, streptococcus viridans.
Arteriosclerosis.

3. *Historical landmarks.*

Healed tuberculosis, primary complex.

DR. TRACY B. MALLORY: This is a case of bacterial endocarditis. It seems to be a rather unusual one in several ways. From the clinical point of view, as I said before, in the records of this hospital they have never had as marked leukopenia in any of their subacute bacterial endocarditis cases before. Two other rather unusual clinical things were noted in the case. One was not put in your record, that the urine showed a very strong and repeatedly positive culture of streptococcus viridans. How frequently that is the case I do not know. We have not been accustomed to making cultures of the urine ordinarily in endocarditis cases, and we have no statistics available here. It is rather surprising that with the organisms constantly present there in the urine red cells were not found on any occasion. The third thing brought out was the response to the tourniquet with petechial hemorrhages, again something that I think they have not tried very often. It makes one wonder a little whether we are not too ready to assume that all the petechial hemorrhages in bacterial endocarditis are necessarily embolic.

The heart was very large, weighing 550 grams. It showed slight evidence of an old rheumatic infection of the aortic valve. In addition to this was an acute vegetation 1.5 cm. in diameter which had ulcerated through the base of the cusps so that there was regurgitation not only through the normal opening between the cusps but also between one of the cusps and the wall. It also had caused an ulceration at this point through the wall of the aorta with the formation of a small mycotic aneurysm lying between the aorta and the pulmonary artery, and protruding down a short distance into the myocardium of the auricle. This type of ulcerative endocarditis can of course occur with a streptococcus viridans, which was the organism recovered from the heart's blood in this case, but is rather more common with other organisms such as hemolytic streptococci or pneumococci. The extremely low white count also is more common in acute fatal hemolytic streptococcus septicemia cases than in viridans. In hemolytic cases I have seen it so extreme that you get white counts of five and six hundred, and a search through several smears would fail to show a single polymorphonuclear. The toxic vascular reaction in response to tourniquet would also agree better with a hemolytic streptococcus than with viridans. However, there was no question about the organism in this case. It did not produce hemolysis, and methemoglobin was formed in large amounts in culture on blood containing media.

The organs showed chronic passive congestion.

The spleen was greatly enlarged, weighing nearly 800 grams.

The kidneys showed a few scars, but no fresh recognizable infarcts. The pelves of the kidneys showed considerable congestion. In the ureters this was rather more marked, and there were numerous petechial hemorrhages. The mucosa of the bladder showed quite an extraordinary picture, every square centimeter of it showing marked submucosal hemorrhages, apparently directly due to the presence of the viridans in the bladder itself. A slight degree of cystitis is not uncommon associated with bacterial endocarditis, but we have never seen anything so acute as this one.

DR. CABOT: What did the lungs show?

DR. MALLORY: They showed a moderate degree of bronchopneumonia, not so marked as I should expect from that plate. There was no evidence of miliary tuberculosis.

*A. Piney: Recent Advances in Haematology. Blakiston, 1927.

CASE 13562

AN UNUSUAL ABDOMINAL EMERGENCY

SURGICAL DEPARTMENT

A sixteen-year-old schoolgirl came to the Emergency Ward at 7 p. m. September 18 complaining of pain in the abdomen.

Early in the morning of September 13 she began to have aching in the midline at about the

level of the umbilicus. Her appetite was poor and she vomited everything she tried to eat. The following day the pain was not so severe, but the stomach was so sore that it tended to double her up. She stayed in bed most of the day. She again had nausea and vomited when she tried to eat. For the next three days she felt well and was up and about. On September 10 she went in swimming and got quite chilled. The day before admission her catamenia began a week late. Before this her periods had been regular. The morning of admission the pain recurred and gradually increased in severity until at noon it almost made her cry out. She took some medicine, not a cathartic, and after this vomited. Her stools had been quite soft and watery at times, chiefly September 14. Her bowels had moved daily. Since the night before admission the pain had grown less severe. She took and retained some milk at noon the day of admission.

Her father died of chronic kidney and cardiac disease.

Her general health had been fairly good. She used to faint a good deal when she was small. She had influenza at seven.

Clinical examination showed a well nourished young girl lying on her left side in considerable discomfort. The voice and breath sounds were increased over the right apex. The apex impulse of the heart was felt in the fifth space. The left border of dullness was 7 centimeters to the left of midsternum, 2 centimeters outside the midclavicular line. There was no other enlargement to percussion. The aortic second sound was accentuated. There was a systolic murmur at the apex. The rate was moderately rapid. Blood pressure 160/90. The abdomen was somewhat distended, with tympany in the midportion and shifting dullness in the flanks. There was some tenderness in both lower quadrants and in the left hypochondrium. No masses or organs were felt. Pelvic examination was not done. Rectal examination showed some tenderness high up on the right side. The cervix seemed a little tender. The extremities, reflexes and pupils were normal. A fundus examination showed the discs not clear cut, the edges hazy; no retinitis or choking.

Before operation amount and specific gravity of urine not recorded, a large trace of albumin in one of two specimens. Blood 16,000 to 16,800 leucocytes, 84 per cent. polynuclears, hemoglobin 70 per cent., reds 4,410,000, plateslets normal. Wassermann not recorded.

Before operation temperature 99.8° to 98.2°, pulse and respirations normal.

The patient continued in about the same condition. The night of September 19 she had definitely projectile vomiting. The next day she said the pain was less severe. The abdomen felt as it did at admission.

September 21 operation was done. The following morning her condition seemed very serious. After some discussion as to the advisability of a second operation, it was performed. A few hours later she died.

Discussion

BY EDWARD L. YOUNG, JR., M.D.

There are one or two things here worth noting. One is that the pain began five days before admission, and that pain came before vomiting. Any acute abdominal condition where vomiting is the first symptom is to be taken with more suspicion as regards its cause, in a surgical condition, than when the pain is the first symptom. She came in on the 18th. She was taken sick with pain about the umbilicus five days before, followed by vomiting with soreness in the abdomen. The only other thing to throw us off of a very probable appendix diagnosis is the upset of the period, which was a week late.

She comes in with a temperature of 99.8°, a moderate leucocytosis, and, if we are to believe the signs, fluid in the abdomen. According to the rule of localization of pain, the higher in the abdomen the pain is the higher in the gastrointestinal tract the lesion is. In cases of appendicitis pain will start near or above the umbilicus when the appendix is free in the abdominal cavity and in contact with the small intestine, and when it is buried under the cecum it will be in the right lower quadrant.

As I read the story here it is of an appendix. An ovarian cyst will cause upset of menstruation, and a twisted ovarian cyst will give the symptoms here given. Of course a delayed period with pain always suggests an extrauterine. But she has not apparently been bleeding enough, and the picture as given is not of an extrauterine.

I have no diagnosis to make that seems to me worth considering seriously other than the three I have made. Of course this was fifteen years ago. We wonder if it was possibly an atypical typhoid with perforation. That ought not to go for as many days as it has. I should put appendix first, with peritonitis; twisted ovarian cyst a poor second, and ruptured extrauterine and pelvic sepsis possible but rather unlikely.

Dr. William M. Shedden: I saw the patient in the hospital and operated on her. We all looked her over carefully, and could not make a diagnosis. We held her in the ward because she seemed distinctly better. On the afternoon before the operation she said that she was feeling a good deal better, but on examination of the abdomen she was about as tender as when we first saw her in the hospital. She was not more tender on the right than on the left, and she had, we felt, fluid in the belly. That afternoon none of us considered that she needed an emergency operation.

DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

1. Acute appendicitis with perforation?
2. Twisted ovarian cyst?
3. Ruptured extrauterine pregnancy?
4. Pelvic sepsis.

PRE-OPERATIVE DIAGNOSIS, SEPTEMBER 21

Peritonitis?

FIRST OPERATION

Gas and ether. Low midline incision. It was found that the distal two-thirds of the ileum was dusky cyanotic, with a few areas where it was definitely blue. The peritoneum had not lost its shine anywhere. Examination for the cause of the occlusion showed that the mesentery had undergone one complete twist. The intestine was brought out of the wound and rotated through 360° to untwist the volvulus in the mesentery. Apparently the color was coming back into the gut somewhat, therefore the intestine was restored to the abdominal cavity and the wound closed.

FURTHER DISCUSSION

DR. YOUNG: Apparently their argument was somewhat similar.

DR. SHEDDEN: So far as we could make out the mesentery of the entire small intestine had taken one 360 degree turn. We had to take the entire small intestine out on the belly before we could reduce it.

DR. YOUNG: I never have heard of a complete volvulus before.

DR. SHEDDEN: We had our choice of either putting the intestine back and sewing her up or leaving all the dusky intestine out on the belly wall. We felt of the two the best chance was to put it back in the belly, because there was no definite small area that we could resect. The whole intestine was dusky.

DR. YOUNG: There is a limit to what you can take out of the small intestine, anyway. I was entirely thrown off because it says her bowels moved daily. Again I have to show complete ignorance. Why did they do a second operation, —an enterostomy, to relieve the toxic absorption?

DR. SHEDDEN: She became rapidly toxic. Dr. McIver operated at the second operation. He explored and did an ileostomy. The reason that she continued to get worse was probably that twisting and untwisting the mesentery had traumatized the vein and that the vein thrombosed.

PRE-OPERATIVE DIAGNOSIS, SEPTEMBER 22

Intestinal obstruction.
Mesenteric thrombosis.

SECOND OPERATION

Local novocain. On opening the abdomen gangrenous coils of small intestine presented. All of the gangrenous intestine that could be delivered was drawn out of the abdomen and the wound closed around it. Catheter drainage into the lumen was instituted. No twists of the mesentery could be demonstrated.

FURTHER DISCUSSION

DR. YOUNG: Of course any volvulus after a time results in enough damage so that mesenteric thrombosis will take place. This is a very unusual situation, one which I should not have guessed if I had guessed all of the forty-odd causes of pain in the abdomen.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Volvulus with intestinal obstruction and mesenteric thrombosis.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Volvulus.
Mesenteric thrombosis.

ANATOMIC DIAGNOSES

Infarction of the ileum. (Volvulus?)
Mesenteric thrombosis.

DR. TRACY B. MALLORY: At the post mortem examination we found two fresh incisions in the abdominal wall, one in the right rectus and the other in the left. Through the left incision a considerable amount of small intestine had been brought out to the surface. On opening the peritoneal cavity there was no fluid and no other evidence of peritonitis. The intestines showed, starting at about the level of the midjejunum, congestion which became gradually greater and greater as one went down. There was at no point a sharp line of demarcation. It was a steadily increasing process. As one reached the portion from six to two feet from the ileocecal valve, the loops of the intestine that had been brought out of the wound were quite black. The twist in the mesentery had been completely uncoiled and the veins showed rather numerous clots. Ordinarily in the smaller vessels of the mesentery the blood does not clot firmly post mortem. These clots were so fresh that it was impossible to say with certainty whether they were ante-mortem or post-mortem,—and they might easily have been a few hours ante-mortem. I think that is the only reasonable explanation of the condition. There was nothing else in the necropsy of any significance.

DR. CABOT: Dr. Means, is anything known about the physiology of these twists? When a lesion turns up like this, which seems as if somebody had got in there with very strong hands and turned the intestine over—because that is what we have to do to get it back,—one wonders by what train of events it can come about.

DR. J. H. MEANS: Or one might wonder why it does not happen oftener. I do not know anything about the causative factor.

DR. GEORGE W. HOLMES: We have no idea.

DR. CABOT: It seems to me one of the real mysteries of medicine, because we still talk about twists just as we did a hundred years ago and do not seem to know anything more about them.

DR. YOUNG: We practically never make a diagnosis before operation.

DR. CABOT: Some pathologists have expressed a doubt as to whether there ever was a twist during life.

NOTE BY DR. MONROE A. MC IVER

This is an unusual case, and the course of events leading up to gangrene of the intestine is not clear to me. As I understand it there was no question in the mind of the surgeon who performed the first operation that a volvulus existed and that it was interfering with the circulation. When there is interference with the circulation to the intestine from bands, adhesions, twists et cetera the veins are usually the point of obstruction because they are thin walled and because the pressure in them is low. I believe that as the result of the obstruction and stagnation a thrombosis was set up which continued even though the inciting cause, the volvulus, had been reduced. From the story it is difficult to say when serious interference to the circulation began.

COD LIVER OIL STOCKS TESTED FOR VITAMINS

Cod liver oil preparations deficient in vitamin content will be removed from channels of interstate commerce, according to a statement December 27 by the Food, Drug and Insecticide Administration of the Department of Agriculture, whose officials have already started action against such misbranded products.

The statement follows in full text:

Action is under way to remove from the channels of interstate commerce adulterated, misbranded, deteriorated, or otherwise illegal extracts of cod liver, cod liver oil, and preparations falsely alleged to contain the vitamins of cod liver oil.

During 1927 the Department of Agriculutre conducted an extensive survey of extracts of cod liver oil and of various products alleged to contain the vitamins of cod liver oil found in interstate commerce. A biological examination for the presence of vitamins A and D in these products showed that practically all of the extracts and concentrates examined were virtually devoid of vitamin A and that few contained any material amount of vitamin D. Several of these articles have been used extensively in the manufacture of so-called cod liver oil compound tablets and other preparations.

The Federal food and drugs act makes the manufacturer or distributor of medicinal products responsible for marketing them in harmony with its provisions. Manufacturers should assure themselves that the cod liver oil vitamins are present in therapeutically significant amounts. The Department of Agriculture will take action against products that are labeled or represented as containing the cod liver oil vitamins, unless such products contain in the recommended dosage cod liver oil vitamins in quantities equivalent to those present in the normally prescribed doses of cod liver oil.

Products represented as concentrates of cod liver oil should contain vitamins A and D in concentrations reasonably higher than those of a good grade of cod liver oil. Statements regarding the therapeutic effects of the preparations should be limited to those that can be fully substantiated by the consensus of present-day medical opinion. Investigations of this class of products will be continued for the purpose of removing from the market adulterated, misbranded, deteriorated, or otherwise illegal preparations.—*United States Daily.*

ETHICAL COURSES FOR MEDICAL STUDENTS

For many years the suggestion has been made at intervals that the medical student's education might usefully be rounded off with a lecture or lectures, given by an experienced general practitioner, on the proper conduct of practice. An experiment in this direction has now been made in London, and the November and December issues of the *St. Bartholomew's Hospital Journal* contain the text of a lecture on "Manners and customs in general practice," delivered at the hospital in October by Dr. L. G. Glover. The experiment was, no doubt, the outcome of an address which Dr. Glover gave to the Albernethian Society at St. Bartholomew's in 1926. It is interesting to compare the lecture with the syllabus, published last May in the *Journal of the American Medical Association*, of a course of six lectures which have been given during the past four years in the Washington University School of Medicine by the lecturer on professional conduct, Dr. Park J. White. Dr. Glover, in a simple and straightforward manner, trod the well worn path of English medical ethics, basing his discourse on the ancient rule in Augustinian monasteries for the master of the farmery, that "he ought to be gentle, good-tempered, kind, compassionate to the sick, and willing to gratify their needs with an affectionate sympathy." If Dr. Glover laid almost unnecessary stress upon some of the rules of right conduct, this was as it should be in an address to hearers unacquainted with medical life. The American syllabus, on the other hand, though equally designed to keep the new practitioner in the narrow way of orthodoxy, is garnished with arresting subheadings. Thus, under the title "Acquiring practice properly," we find an item "Medical salesmanship." Advertising is dealt with as "legitimate" and "illegitimate," and practice may be improperly acquired by undue optimism or "alarmism." In the lecture on medical finance, after a description of the medical plight of the "genteel" middle classes, the student is instructed how to cope with patients "shopping" to learn size of fees for comparison with those of other doctors. For variety and topical interest, however, we are much impressed by lecture five, which embraces not only eugenics, euthanasia, and birth control, but also quacks and cults. A subheading of the last item concerns "near-quackish practices of the medical profession itself, such as unwarranted glandular, electric, and intravenous therapy employed for effect"—the words "for effect" meaning here, no doubt, "to impress." We are not sure whether it is wise to introduce the student to all the seven sins of medicine at once. Perhaps he will do better on the milder pabulum of Dr. Glover, which offers him a lofty ideal, and leaves him, fortified with this, to find out some of the more heinous wickedness for himself. —*British Medical Journal.*

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MEDICINE AND THE SIXTH PAN-AMERICAN CONGRESS

UPON reading the colorful reports of the Pan-American Congress at Havana, one may not think of the effect which this convention will have upon medicine. There are several ways, nevertheless, in which the gathering of representatives from the nations of the New World is likely to influence the future course of American medicine. To begin with, the mere getting together of the delegates will tend to strengthen the feeling of interrelationship and common welfare, and will thereby increase the interest felt by medical men of one nation in the achievements of their confreres of other countries. This process of becoming acquainted has already been greatly advanced by the South American tours of the American College of Surgeons, and it is safe to assume that another decade or two will see much more reciprocal visiting.

A somewhat less direct effect upon medicine may be exerted through the better prospects for peace between the nations of The Americas. This purpose of the convention was emphasized by the Cuban Secretary of State, Dr. Raphael Ortiz, who said in part, "If we succeed in solving the problem for us, it is a fact that it would be an inestimable contribution toward arriving at the same results in Europe. We are coöperators, not rivals, because if America sacrificed thousands of her sons in the battlefields for the prevalence of justice, she can well lend the aid of her efforts, with the purpose of obtaining the victory of the same cause in the bloodless field of ideas and peaceful methods".

It is hardly necessary to point out the beneficent effects of peace upon the progress of medicine and the allied sciences. Although the exigencies of war may bring forth some contributions relating to the management of wounds and to the hygiene of large numbers of men, the record of the World War showed an almost complete cessation of medical research in very many lines. Witness, as an example of this, the tremendous loss of prestige to German medicine as a result of four years of military activity. In a war of any magnitude, a majority of a nation's physicians must be drafted to care for the troops. Those left at home are so busy with their care of the civilian population that they have no time for study or for progress.

A third way in which the Congress may influence medicine, and perhaps a more direct way, is by means of the activities of its "Committee on socal problems including sanitary and child-welfare provisions". At this time the actions of the various committees are not yet reported, so we do not know the questions which this committee will consider. It is safe to assume that with Dr. Ray Lyman Wilbur and Dr. James Brown Scott acting for the United States on this committee, our country will be ably represented. The control of communicable diseases will doubtless be one of the main topics for consideration.

The progress of medicine is intimately bound up with international peace and the free interchange of ideas. In so far as the Sixth Pan-American Congress furthers these things, and brings together the nations of America, it will serve to advance the standards of medicine as practised in the Western Hemisphere.

THE AFFILIATION WITH THE VERMONT STATE MEDICAL SOCIETY

THIS issue of the JOURNAL presents the first installment of material submitted by the Vermont State Medical Society and records one more step in the plan to develop a journal which will, we trust, represent to a considerable extent the medical activities of this section of the United States. How far this movement may succeed depends on the coöperative activities of those states which are affiliating with the Massachusetts Medical Society in this project. While the ownership of the JOURNAL is vested in the last named society we are led to believe that if any of the other New England State Societies shall,

after trial of this plan, desire to have a corporation formed which shall include the other societies or properly accredited representatives that some plan may be devised which will give definite ownership to all societies caring to unite in the publication of a New England Journal. Until such purpose shall have been indicated the Massachusetts Medical Society stands as the voluntary agent of the other State Societies in publishing such material as may be submitted. For this purpose a section of the JOURNAL in one of its issues in every month will be assigned to each contributory society. The JOURNAL in which this material appears will be sent to every member of the contributing society at a charge of one dollar per year with the further agreement that all of the fifty-two issues will be sent to all members subscribing three dollars in addition to the one dollar paid by the State Society.

Vermont has followed the lead of New Hampshire and we welcome this new acquisition to our editorial force.

We hope that the Vermont physicians wlll forward news items which come to their attention to the end that their section of the JOURNAL may be of general interest. Many physicians practicing in other states have friends in Vermont and may be interested in reports with respect to medical men and affairs in that state.

WAR ON THE COMMON COLD

BECAUSE the average person in this country is subject to two severe colds every year with suffering, loss of production, time and perhaps serious complications the importance of this malady is receiving more attention than formerly.

It is claimed that diseases of this group including influenza and certain forms of pneumonia which present symptoms in the early stages similar to the common cold cause more deaths than any other infectious disease. The Public Health Service of the United States has shown that four out of every ten men and seven out of every ten women are affected with the loss of industry of 1.4 days a year for each man and 2.1 for every woman. There is a further loss in efficiency on the part of those who continue to work under the handicap of a cold. Among the 6,700 clerical employees of the Metropolitan Life Insurance Co. there were 6,233 days lost in one year because of colds, without taking into account some of the more serious conditions which may have had some relation to colds. Other studies have confirmed these reports and a mass of impressive statistics is available and yet very little is known about the etiology or cure of colds.

Fortunately scientific investigation of colds and their allied enemies of the race is to be prosecuted at the Johns Hopkins Medical School under the direction of a central committee consisting of Dr. Lewis H. Weed, Dr. William H. Howell, Dr. Carroll G. Bull, Dr. Warfield T. Longeope, Dr. Wade H. Frost and Dr. Samuel J. Crowe. This movement has been financed by the Chemical Foundation which has appropriated $195,000 for a five year research into the causes and treatment of these disorders. This endowment is to be known as the John J. Abel Fund. One may confidently expect that one great financial loss to the country will be prevented by this study, both through the prevention of these maladies and in reducing the useless expenditures of money by the self-dosing patients who now spend a large proportion of the $500,000,000 annual drug bill in treating colds.

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

MONKS, GEORGE H. A.B., M.D. Harvard Medical School 1880, F.A.C.S., M.R.C.S., (Eng.) formerly Lecturer on Surgery at Harvard Medical School, Professor of Oral Surgery Emeritus at Harvard University, Consulting Surgeon at Boston City Hospital. His subject is: "Selections from the Medical Writings and Sayings of Dr. Oliver Wendell Holmes." Page 1385. Address: 51 Commonwealth Ave., Boston.

WHITTEMORE, WYMAN. S.B., M.D. Harvard Medical School 1905, F.A.C.S., Member New England Surgical Society, Associate Surgeon at Massachusetts General Hospital, Instructor in Surgery at Harvard Medical School, Fellow of the American Surgical Association. His subject is: "The Surgery of Pulmonary Tuberculosis." Page 1395. Address: 199 Beacon St., Boston.

CHADWICK, HENRY D. M.D. Harvard Medical School 1895, Formerly Supt. of Vt. Sanatorium 1907 and 1908, Supt. Westfield State Sanatorium since 1909, Formerly Acting Director of Division of Tuberculosis of Massachusetts Department of Public Health 1926. His subject is: "The Diagnosis and Prognosis of Juvenile Tuberculosis." Page 1399. Address: Westfield, Mass.

WARREN, SHIELDS. A.B., M.D. Harvard Medical School 1923, Pathologist at the New England Deaconess and Palmer Memorial Hospitals, Instructor in Pathology at Harvard Medical School. His subject is: "The Protection of Firemen Against Occupational Hazards." Page 1401. Address: 195 Pilgrim Rd.

EDDY, MERRITT H. M.D. University of Vermont College of Medicine 1865. His subject is: "Experiences in Medicine." Page 1407. Address: Middlebury, Vt.

The Massachusetts Medical Society

Stated Meeting of the Council

There will be a meeting of the Council in John Ware Hall, Boston Medical Library, 8 The Fenway, Boston, on Wednesday, February 1, 1928, at 12 o'clock, noon.

Business:

1. Reports of Standing Committees.
2. Reports of Committees appointed to consider petitions for restoration of fellowship. Appointment of committees to consider new petitions.
3. Reports of Special Committees.
4. Report of Treasurer and Auditing Committee.
5. Report of Committee on Membership and Finance, on Finance.
6. Appoint delegate to annual Congress on Medical Education at Chicago, February, 1928.
7. Appoint three delegates to House of Delegates, American Medical Association, for two years from June 1, 1928.
8. Appoint two delegates each to the annual meetings of the New England State Medical Societies in 1928.
9. Fill vacancy in Board of Censors, Worcester District caused by resignation of Mary A. Charteris.
10. Fill vacancy in Committee on Malpractice Defence caused by resignation of F. H. Baker.
11. Consideration of Draft of Revised By-Laws.
12. Incidental Business.

Walter L. Burrage, *Secretary.*

Brookline, January 25, 1928.

Councilors are reminded to sign one of the attendance books before the meeting.

Section of Obstetrics and Gynecology

Foster S. Kellogg, M.D. *Chairman* **Frederick L. Good, M.D.** *Secretary*

Frederick J. Lynch, M.D., *Clerk*

What is the Treatment of Acute Mastitis?

Acute mastitis occurring early during lactation (second ten days of the puerperium usually) is commonly a result of unsuccessful management of fissured and abraded nipples, but the infection may enter via the gland ducts in the absence of nipple lesions. Duct invasion probably explains most of the late cases. At this time nipple lesions are uncommon, but carelessness, in the hygienic details of nursing, is not.

The treatment of acute mastitis, which is always a potential abscess, is primarily prophylaxis: a scrupulous regard for the essentials of nursing hygiene, designed to minimize the possibility of infection, of course, is of the first importance. With the first complaint of painful nursing the nipple is inspected for fissures, abrasions, blisters, or crusts, (a magnifying glass is invaluable) if any of these are discovered further nursing on that nipple is absolutely prohibited until the lesion has healed. The nurse should be instructed to this effect in advance. A daily inspection of the nipples is made that fissures not especially painful may not be overlooked. Twenty-four hours is usually sufficient for the healing of lesions detected early but nursing is not to be resumed until the lesion is entirely healed. Various applications may hasten healing but rest of the injured nipple is most important: the lead shield is helpful to protect the nipple from the mechanical irritation of the binder, etc.

Tender nipples without demonstrable lesions are sometimes relieved by the glass nipple shield but a satisfactory and safe procedure is to skip one or more feedings daily. The hand breast pump may be resorted to to relieve undue breast congestion, a tight binder and an ice bag is better. The electric breast pump, when available is very valuable in the management of tender nipples but is used only in the absence of definite abrasions.

A sharp and fairly high temperature elevation, without a corresponding pulse acceleration, occurring rather late in the puerperium, with the complaint of painful nursing and the appearance of tender areas in the breast, especially if the skin is reddened over such areas, is indicative of an acute mastitis.

This mastitis may pathologically be an inflammation in the gland ducts, clinically limited to the general region of the areola, or it may be in the glands proper, (parenchymatous), the most common variety, or as a lymphangitis, it may invade the deeper cellular tissues of the breast with the resulting abscess "sub glandular;" this latter represents the more serious type with a remote possibility of fatal termination.

Acute mastitis diagnosed, the procedure is very definite: immediate cessation of nursing on the affected breast, a firm supporting binder, and the application of ice. At least three of the ordinary ice caps should be used held in place by a second binder. The bags should at all times be well filled. A considerable proportion of cases of acute mastitis will recover under this treatment within forty-eight hours; if the temperature persists longer suppuration usually occurs. In the absence of suppuration nursing may be resumed on the third day of flat temperature.

If suppuration occurs the abscess should be opened (with a generous incision) at once. The incision should not cross the edge of the areola (to avoid an ugly pigmented scar). The small abscess near the nipple may be opened within the borders of the areola. The abscess cavity is firmly packed with gauze.

The abscess opened, two difficulties may be anticipated: first, that the superficial areas will

granulate in more rapidly then the deeper portions of the cavity to result in saculation and the need for reopening. This possibility is greatly increased by too early removal of the original drain. It seems wise to leave the original wick in until it is partially extruded by the healing process below. The foul character of the discharge is materially lessened by chlorine dressings. Eight or nine days may not be too long for the original wick to remain in situ. The second possibility is that opening having been delayed, the infectious process may have invaded areas beyond the original abscess, these areas in turn suppurating and requiring incision. A large abscess cavity or one with saculation may require more than one incision with through and through drainage. The large subglandular type of abscess should be incised well out at the periphery of the breast, (to avoid gland tissue which may not be infected,) with at least three incisions and connecting drains.

Questions of a similar nature to the above will be discussed in the JOURNAL each week. They may be addressed to the Clerk of the Committee, in care of the JOURNAL and will be answered by members of the Committee of the Section of Obstetrics and Gynecology.

MISCELLANY

OPTIMISM EXPRESSED ON HEALTH CONDITIONS

Unusually good health conditions in the United States during 1928 are foreseen by the Surgeon General of the Public Health Service, Dr. Hugh S. Cumming, who stated orally on December 31 that the outlook for the new year is "very encouraging" and that health officers throughout the country generally are "optimistic" as to the public health.

Pointing out that the year 1927 was unprecedentedly good in so far as the health of the people of this country, and of the entire world, was concerned, Dr. Cumming said that he could see no reason why this "gratifying condition" should not continue or improve. The people of the country, he said, are rapidly assimilating the common rules of keeping fit. Public health education, by means of dissemination of literature, advice from competent physicians, as a part of the curricula of the public schools, and through the newspapers, all have contributed to the better social and economic condition of the people, the Surgeon General declared.

During 1927, Dr. Cumming said, abnormal prevalence of poliomyelitis (infantile paralysis) and smallpox existed in the United States, but these have been gradually controlled. The small-pox situation, he said, is in no sense alarming, inasmuch as the disease has been of an unusually benign nature, with few deaths. Infantile paralysis, on the other hand, did reach an epidemic stage in certain areas of the country, but has steadily declined in prevalence, with the result that it now is only slightly above normal in incidence.

Communicable diseases as a whole, however, Dr. Cumming said, were less evident during 1927 than during preceding years. Therefore, he declared, the medical profession looks to 1928 as a peak year in good health.—*United States Daily.*

ALASTRIM IDENTIFIED AS FORM OF SMALLPOX

PUBLIC HEALTH SERVICE DETERMINED EXISTENCE OF DEFINITE CROSS IMMUNITY

Experiments conducted by the Public Health Service have resulted in the conclusion that a "definite cross-immunity exists between alastrim and mild smallpox," according to a statement made public December 29 by the Public Health Service. The full text of the statement follows:

A report recently published by the Public Health Service deals with the relationship of alastrim and mild smallpox.

This report presents the results of some experiments which tend to show the identity of an eruptive disease prevalent in tropical America with the mild smallpox of the United States and Canada. The disease travels under a variety of names, such as varioloid varicella, alastrim, Kaffir milk pox, Sanagra pox, the Australian disease, Cuban itch, Philippine itch, and so on.

In order to test the relationship of alastrim with mild smallpox, a considerable number of experiments were performed upon monkeys and rabbits. As a result of these immunological tests the conclusion is reached that the fact that a definite cross-immunity exists between alastrim and mild smallpox, and between alastrim and vaccine virus, is additional evidence of the identity of the two diseases.—*U. S. Daily.*

THE THIRD RACE BETTERMENT CONFERENCE

Three scientists from Massachusetts were among the 75 or more speakers at the Third Race Betterment Conference held at the Battle Creek (Michigan) Sanitarium from January 2 to 6, 1928. Professor E. M. East of Harvard University delivered an address on "The Genetic Basis of Eugenics," Professor J. W. M. Bunker of the Massachusetts Institute of Technology spoke on "Light and Life," and Mr. F. L. Hoffman of Wellesley Hills contributed a paper on "The Health Progress of the American Indian." The only other participant in the program from New England was Professor Irving Fisher of Yale University, who presided at several sessions and made an address at one of the evening meetings on "The Lengthening of Human Life, in Retrospect and Prospect." C. C. Little, D.Sc., president of the University of Michigan and formerly head of the University of Maine, served as president of the conference.

About 200 scientists, representing medicine, public health, biology, chemistry, biochemistry, nutrition, and sociology, attended this convention as guests of the Battle Creek Sanitarium, where they were hospitably entertained. Following one of the evening meetings, to which the public was invited, an Old-American Party was held, with Mr. and Mrs. Henry Ford leading the dancing.

The numerous papers of the interesting and instructive, though somewhat crowded, program are later to be published in one volume. They touch on every conceivable subject which is directly or remotely concerned with race improvement, from heredity and eugenics to sanitation and economics, taking in physiology, nutrition, physical education, delinquency, crime, and other subjects on the way. Dr. John Harvey Kellogg is president of the Race Betterment Foundation.

RATS ON WEST COAST FOUND FREE OF PLAGUE

More than 12,000 rodents have been killed and examined in recent weeks in certain areas of the States of California and Washington without trace of plague infection, according to a statement made public by the United States Public Health Service on January 3.—*The United States Daily.*

DISEASE INCIDENCE IN CONNECTICUT
MONTH ENDING JANUARY 7

	Week ending Dec. 17, 1927	Week ending Dec. 24, 1927	Week ending Dec. 31, 1927	Week ending Jan. 7, 1928	Average cases reported for week corresponding to Jan. 7 for past seven years	Week ending Dec. 18, 1926	Week ending Dec. 25, 1926	Week ending Jan. 1, 1927	Week ending Jan. 8, 1927
Actinomycosis	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-
Botulism	-	-	-	-	-	-	-	-	-
Cerebrospinal Men.	-	1	1	-	1	2	1	1	1
Chickenpox	120	130	61	169	83	153	81	77	135
Conjunctivitis Inf.	4	-	-	-	4	-	-	-	-
Diphtheria	59	41	40	44	77	28	18	34	34
Dysentery, Amoebic	-	-	-	-	-	-	-	-	-
Dysentery, Bacillary	-	-	-	-	-	-	-	-	-
Encephalitis, Epid.	-	1	-	1	-	-	-	1	3
Favus	-	-	-	-	-	-	-	-	-
German Measles	-	5	1	4	6	-	3	2	3
Hookworm Infection	-	-	-	-	-	-	-	-	-
Influenza	9	15	12	7	8	17	2	13	12
Leprosy	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-
Measles	43	35	55	71	222	67	29	28	26
Mumps	27	39	25	36	27	18	17	10	27
Paratyphoid fever	-	-	-	-	-	-	-	-	-
Pneumonia (Broncho)	38	27	27	40	51*	28	25	40	44
Pneumonia (Lobar)	47	39	48	54	42	37	30	43	58
Poliomyelitis	2	-	-	-	-	1	1	1	-
Scarlet fever	70	65	75	78	128	77	60	82	93
Septic Sore Throat	2	2	3	3	1	3	1	1	3
Smallpox	-	-	1	26	1	-	-	-	-
Tetanus	-	-	-	-	-	-	-	-	-
Trachoma	-	-	-	-	-	-	1	-	-
Trichinosis	-	-	-	-	1	-	-	-	-
Tuberculosis (pul.)	24	12	29	22	30	22	12	22	30
Tuberculosis (o.f.)	1	-	4	-	4	2	2	2	1
Typhoid Fever	1	2	-	1	3	1	2	5	3
Typhus Fever	-	-	-	-	-	-	-	-	-
Whooping Cough	109	117	75	83	73	35	28	47	62
Gonorrhoea	36	17	43	17	17	12	16	14	20
Syphilis	22	49	34	13	17	8	3	13	20

*Average for two years. Made reportable January 1, 1925. Remarks: No cases of cholera, Asiatic, glanders, plague, rabies in humans and yellow fever during the past seven years.

AN INTERNATIONAL MEDICAL ASSOCIATION AND CENTRE

In July, 1926, a body called the Association Professionnelle Internationale des Médecins was formed by a group of 14 delegates of medical associations who chose as their secretary-general Dr. Fernand Décourt, President of the Union des Syndicats Médicaux de France, and selected Paris as their headquarters. On Sept. 29th of this year the delegates met again in Paris, this time in the fine new building at 10, Place d'Iéna, which has recently been opened as a Foyer Médical Franco-International. Twenty-two countries have now joined the Association, each of which has designated as its correspondent either the president or the secretary of the national association. The representatives present were Drs. Schneider (Germany), Stritzko (Austria), Schaeffer (Denmark), Fortuyn (Holland), Fredders (Lithuania), Schaeftgen (Luxemburg), Przyborowski (Poland), Tomesco (Roumania), Rystedt (Sweden), Vuilleumier (Switzerland), and Farkas (Jugoslavia and Czechoslovakia). Dr. Alfred Cox (England) was present in an unofficial capacity, the British Medical Association not having decided whether it will join the International Association. It is stated that several important professional questions have already been taken up by the Association and liaison has been established with the International Labour Office in Geneva. The Foyer Médical has been built as a commercial undertaking, the capital having been subscribed by investors. It contains comfortable reception rooms, restaurant, bar, tea-room, and reading and writing rooms. A tourist bureau provides information on hotels and professional information on clinics, hospitals, and specialists can be obtained. The aim of the promoters is to make it both a club and a centre of information for doctors of every nationality.—*The Lancet.*

CREDITING PHYSICIANS FOR CHARITY WORK

Editorial Comment from the Indiana Medical Journal

In a former issue of *The Journal* we commented on the enormous amount of relief work done in the flooded districts of the South and the part played by scientific medicine. One of our southern friends says that it might be well to call attention to the fact that out of all of the relief workers in the South during the devastating flood the majority of them, with the exception of members of the medical profession, were on salaries. Food, clothing and supplies of every kind were furnished by the Red Cross and various charitable organizations, but for the most part those who were engaged in handling these supplies and distributing them were paid workers. No one thought of paying or offering to pay the medical men for the wonderful work that they did. In reality the medical workers have not asked nor have they expected to be compensated for their services, but when it comes right down to brass tacks physicians ought to be given more credit for such self-sacrifice than they ordinarily receive. This reminds us that this fall there have been innumerable campaigns in every populous community to raise a community chest fund, and solicitors have had no hesitation in asking medical men to contribute money far in excess of real ability to sustain such a drain, and with no credit given for not only the immense amount of charity work done by physicians but for the actual money expended by them in connection with such work. Some of the solicitors for community chest funds think they are doing a wonderful thing if they give up a couple of hours each day for five days, and they use that as an argument for not contributing anything in real cash. That service doesn't amount to a hundredth part of the charity service rendered by many fairly busy physicians in any community. A physician rarely is given credit for the time and skill devoted to the worthy poor or for the actual money overhead charge embraced in the expense of running an automobile, paying salaries of assistants and nurses, and perhaps furnishing gauze, ether, laboratory supplies, and medicine. It might be well for physicians to say to these solicitors for money donations that credit must be given for what is donated in the regular course of practice, and that such contributions must be placed alongside of any cash contributions that are given at the time the funds are raised.

$195,000 FOR STUDY OF COMMON COLDS

Johns Hopkins University medical scientists, with the aid of a fund of $195,000 provided by the Chemical Foundation, will make an exhaustive study of "the origin, nature and possible cure of the common cold." The gift was made to the School of Hygiene and Public Health, which has already made some investigations of the causes of colds.

The fund is to be known as "The John J. Abel Fund for Research on the Common Cold" in honor of the distinguished Professor of Pharmacology of the Johns Hopkins School of Medicine, and will provide $25,000 in the first year. $35,000 in the second and $45,000 in the third, fourth and fifth years of the research work.

Commenting upon the projected research, Dr. Abel said:

"Clinicians and epidemiologists tell me that they have considerable difficulty in sharply defining and classifying the varied kinds of so-called colds, and in determining just what relation they may bear to secondary infections of the throat, head, sinuses and bronchi. Nor do they know just what part colds may play in the occurrence of pneumonia, but the fact that many cases of pneumonia are preceded by a common cold leads to the suspicion of an important causal relation between the two.

"There is also the question of the relation which exists between common colds, ordinary 'grip' and epidemic influenza. Clinically the cases overlap.

"There is also need for more study of the bacteriology of these diseases, for while it is believed that they are infectious, bacteriologists have not yet succeeded in identifying with certainty the particular bacteria or viruses which may be responsible.

"In the whole period of life from childhood to middle age colds and their immediate consequences are the most important general cause of the impairment of efficiency, not to speak of the loss of all feeling of comfort and well-being.

"Until very recent years the common cold has usually been regarded by the layman as a disease too trivial to deserve serious study, and for this reason we know less of this universal malady than we do about other less common but more alarming diseases.

"The problem which has been set to our investigation by Mr. Garvan, of the Chemical Foundation, can only be studied by the coöperative efforts of the clinician, the epidemiologist, the bacteriologist, the pathologist, the pharmacologist, the biochemist, and the physicist.

"Fortunately this spirit of coöperation prevails in the various institutes of the Johns Hopkins University and I am confident that the problem will be attacked with energy, unremitting industry and in a generous spirit of mutual helpfulness by the several investigators into whose hands it will be given."

The research work is to be administered by the following faculty committee: Dr. Lewis H. Weed, dean of the School of Medicine, chairman; Dr. William H. Howell, director of the School of Hygiene and Public Health; Dr. Warfield T. Longcope, Professor of Medicine; Dr. Carroll G. Bull, Professor of Immunology; Dr. W. H. Frost, Professor of Epidemiology; Dr. Samuel J. Crowe, Professor of Laryngology and Otology; Dr. Lawrence H. Baker, Executive Secretary of the medical faculty.—*New York Times.*

DEATH-RATE FOR NEW ENGLAND CITIES IN 1927

City	Total [a] deaths	Death [b] rate	Deaths under [a] 1 year	Provisional infant mortality rate [bc] 1927	Infant mortality rate 1926	Mortality data for calendar year, 1926 [d]		
						Total deaths	Death rate	Deaths under 1 year
Boston	11,006	13.9	1,449	77	84	11,720	14.9	1,573
Bridgeport [e]	1,505		132	46	73	1,692		223
Cambridge	1,385	11.2	156	53	68	1,481	12.1	190
Fall River	1,431	10.8	222	73	91	1,707	13.0	277
Lowell	1,394	12.7	216	87	89	1,549	14.0	220
Lynn	1,137	10.9	119	58	66	1,178	11.3	125
New Bedford	1,303	10.9	161	67	102	1,500	12.5	283
New Haven	2,028	11.0	178	48	54	2,212	12.2	200
Providence	3,165	11.3	379	63	69	3,544	12.9	416
Somerville	929	9.2	96	64	61	1,081	10.8	110
Springfield, Mass.	1,663	11.3	170	52	69	1,820	12.6	229
Waterbury [e]	1,021		118	66	82	1,194		182
Worcester	2,504	12.8	245	57	75	2,701	14.0	322

a. Based upon telegraphic reports received each week from city health officers.

b. Allowance has been made for the extra day, which must be added to the 52 weeks to give a period of 365 days.

c. Infant mortality rate is based upon deaths under 1 year as returned each week and estimated births, 1927.

d. Based upon deaths which occurred within the calendar year.

e. Mortality rates are omitted, pending the establishment of more satisfactory estimates of population.

A PROTEST AGAINST THE DISMISSAL OF DR. BUNDESEN

New York, January 15, 1928—As an aftermath of the dismissal of Dr. Herman N. Bundesen, former Health Commissioner of Chicago, and his replacement by Mayor Thompson's personal physician, a surgeon with no public health training, a public statement has been issued by the most prominent figures in public health work in the United States, protesting against the influence of politics affecting the public health and welfare of the people at large.

Not only has Dr. Bundesen been eliminated from Chicago's Health Department, but also his principal assistants, J. C. Geiger, M.D., deputy health commissioner, Arthur E. Gorman, chief sanitary engineer, and I. S. Falk, Ph.D., director of surveys, who, like their chief, are eminent sanitarians.

The statement issued, bearing the signatures of eminent persons, including two university presidents, states:

The undersigned workers in the field of American public health desire to express an emphatic protest against the action of the Mayor of the City of Chicago in replacing Dr. Herman N. Bundesen, the Health Officer of that city, by a physician who, whatever his personal standing, is without apparent qualifications or experience to fit himself for the discharge of the serious duties of the office in question.

Permanence of tenure for competent health officials is an absolutely essential factor in the protection of the public against preventable disease; and the case in question seems particularly flagrant in view of the extraordinary record of Dr. Bundesen, whose brilliant services have aroused nation-wide admiration. Sacrifice of the lives of citizens of Chicago to political exploitation and personal whims is more than a local matter, since unsanitary conditions in one community may react upon an entire continent.

The action of the Mayor of Chicago strikes a blow at the most fundamental principles of good government. It should meet with prompt and vigorous rebuke from all people of Chicago who care for the reputation of their city and it should stimulate citizens everywhere to see that city charters are amended so as to make such interference with good health administration impossible in their own communities.

A. C. Abbott, M.D.
Director, School of Hygiene and Public Health, University of Pennsylvania, Philadelphia.

Charles V. Chapin, M.D.
Superintendent of Health, Providence, R. I.

S. J. Crumbine, M.D.
General Executive, American Child Health Association, New York City.

Haven Emerson, M.D.
Professor of Public Health Administration, Institute of Public Health, College of Physicians and Surgeons, Columbia University, New York City.

Livingston Farrand, M.D.
President, Cornell University, Ithaca, N. Y.

ALLEN W. FREEMAN, M.D.
Professor of Public Health Administration, Johns Hopkins University, Baltimore, M.D.
MARY S. GARDNER, R.N.
Director, Providence District Nursing Association, Providence, R. I.
LOUIS I. HARRIS, M.D.
Commissioner of Health, New York City.
WILLIAM C. HASSLER, M.D.
Health Officer, San Francisco, Calif.
WILLIAM H. HOWELL, M.D.
Director, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md.
GUY L. KIEFER, M.D.
State Commissioner of Health, Lansing, Mich.
MRS. WALTER MCNAB MILLER
Chairman Public Welfare, General Federation of Women's Clubs; President, Association of Women for Public Health; Chairman on Health, National Council of Women.
JOHN E. MONGER, M.D.
Director of Health, State of Ohio, Columbus, Ohio.
MATTHIAS NICOLL, JR., M.D.
State Commissioner of Health, Albany, N. Y.
WILLIAM H. PARK, M.D.
Director, Bureau of Laboratories, Department of Health, New York City.
J. L. POMEROY, M.D.
Health Officer, Los Angeles County, Los Angeles, Calif.
SAMUEL C. PRESCOTT, S.B.
Head, Department of Biology and Public Health, Massachusetts Institute of Technology, Boston, Mass.
HENRY F. VAUGHAN, DR.P.H.
Commissioner of Health, Detroit, Mich.
GEORGE E. VINCENT, PH.D.
President, Rockefeller Foundation, New York City.
LILLIAN D. WALD, R.N.
President and Head Resident, Henry Street Settlement, New York City.
S. W. WELCH, M.D.
State Health Officer, Montgomery, Ala.
RAY LYMAN WILBUR, M.D.
President, Leland Stanford University, Palo Alto, Calif.
FRANKWOOD E. WILLIAMS, M.D.
Medical Director, National Committee for Mental Hygiene, New York City.
C.-E. A. WINSLOW, DR.P.H.
Professor of Public Health, Yale University.

LEGISLATIVE NOTES

The following bills, of interest to physicians, have been submitted to the Legislature:

Senate 75. An Act relative to Commitment of Defective Delinquents and Drug Addicts is an amendment to Chapter 123 of the General Laws as amended by Section 1 of Chapter 270 of the Acts of 1921.

Senate 89. An Act making Population the Basis for Apportioning Maintenance and Other Costs and Expenses of the Essex County Hospital Upon the Cities and Towns Composing the Hospital District.

Senate 90. An Act making Treatment of Patients the Basis for apportioning Maintenance and other Costs and Expenses of the Essex County Hospital upon the Cities and Towns composing the Hospital District.

Senate 92. An Act providing for Certain Improvements at the Norfolk County Tuberculosis Hospital. This provides for an appropriation of not over $50,000 for improvements which shall be subject to approval by the State Department of Public Health.

Senate 93. An Act providing for a Barn at the Bristol County Tuberculosis Hospital, the cost not to exceed $10,000.

Senate 148. Bill establishing the fee for physicians who appear as witnesses before the department of industrial accidents or before a member of said department.*

Senate 150. Bill relative to practice and procedure under the Workingmen's Compensation Act.*

Senate 197. Bill relative to the treatment of persons suffering from tuberculosis in State sanatoria.*

Senate 198. Bill establishing the salaries of the medical examiners and associate medical examiners of the County of Suffolk.*

Senate 199. Bill defining the duration of services of associate medical examiners for Suffolk County.*

Senate 200. Bill relative to the duties of medical examiners and associates in Suffolk County and relative to their salaries and fees.*

House 168. An Act Relative to the Examination of Persons engaged in the handling of food when required by the Commissioner of Health or local Board of Health.

House 176. An Act relative to Children committed to the County Training Schools.

House 273. Petition of Henry Jarvis for the restriction of the use of habit-forming drugs in state hospitals for the insane. (Text appeared in our issue of January 19 on page 1376. Hearing now scheduled for January 30 at 10:30 A. M.)

House 387. An Act relative to the Health Officers and assistants of Barnstable County. Hearing was scheduled for public health committee, January 23 at 10:30 A. M.

House 441. Bill relative to sanitary conditions in public eating and drinking places.*

House 470. An Act to make Further Provision for the Treatment of Children Predisposed or Susceptible to Tuberculosis by contract approved by the Department of Public Health.

House 488. Bill relative to the compensation of employees where such injuries result in hernia.*

House 489. An Act relative to the Rights of Injured Employees to Waive their Rights to Compensation.

House 492. Bill relative to the cost of physicians appearing before the department of Industrial Accidents on behalf of injured employees.*

House 493. Bill relative to the appearance of medical examiners before the department of Industrial Accidents.*

House 505. Resolve providing for an investigation by a special commission relative to sewerage.

House 517. Bill conferring upon certain army nurses in the public service the retirement rights now enjoyed by certain veterans.*

House 519. Bill to provide for the licensing of local health officers and agents.*

House 533. Bill to accelerate the time for the payment of compensations to the workmen's compensation act.*

House 536. Bill regulating the operation of recreation, health and tourists' camps.*

House 538. Bill relative to the restraining of dogs from running at large.*

House 571. Bill to enlarge the remedies now provided under the Workmen's Compensation Act for the recovery of damages for injuries to employees when the injury is caused under circumstances creating a legal liability in some person other than the insured and to pay damages in respect thereof.*

House 572. Bill relative to the furnishing of medical services in connection with the compensation of injured employees.*

House 598. Resolve providing for an investigation of the sanitary condition of the Charles River Basin.*

House 600. Bill for the further promotion of anatomical science.*

House 601. Bill relative to the contracts for sup-

*This Bill not yet printed for public distribution.

plying hospital facilities for persons suffering from tuberculosis.

House 602. Resolve relative to an investigation by the department of public health relative to the sanitary conditions of the Ware, Chicopee and Swift and Connecticut Rivers and their tributaries.*

House 604. Bill to compensate patients in insane hospitals performing labor.*

House 606. Bill relative to admissions and charges at the Pondville Hospital at Norfolk.*

House 624. Bill providing for the appointment by the Governor of the Health Commissioner of city of Boston. (See reference page 1376, JOURNAL, Jan. 19.)*

House 635. Resolve providing for an investigation relative to methods in use for maintaining purity of the milk supply including the tuberculin test.*

House 674. Bill to expedite hearings under the provisions of the Workmen's Compensation Act.*

House 707. Bill establishing a board of registration in Osteopathy and prescribing its duties.*

House 727. Bill reviving the Athol Memorial Hospital.*

House 748. Bill relative to the limitation of actions against physicians and others for malpractice error or mistake.*

House 761. Bill to provide for the payment of compensation for injury resulting in loss of hearing.*

House 762. Bill relative to the compensation to be paid to injured employees who are totally incapacitated.*

House 763. Bill relative to the time for beginning actions and relative to the giving of notice of injury under the employees' liability act.*

House 776. Resolve providing for an investigation by the Commissioner of Public Health relative to the manufacture of bedding and upholstered furniture.*

House 784. Bill relative to the sale of certain drugs and medicines.*

House 785. Resolve providing for the revision, consolidation and arrangement of the laws pertaining to the practice of pharmacy and narcotics.*

House 786. Bill relative to the ownership and licensing of drug stores.*

House 787. Bill relative to the manufacture, distribution, sale and commercial use of cosmetics.*

House 788. Bill relative to physicians', surgeons' and other medical practitioners' prescriptions, receipts and formulas.*

House 789. Bill relative to medicines, drugs and remedies manufactured, prepared, compounded or dispensed by physicians, surgeons and other medical practitioners.*

House 790. Bill relating to physicians', surgeons' and other medical practitioners' prescriptions, recipes and formulae.*

House 791. Bill relative to the qualifications of applicants for registration as nurses.*

House 792. Bill to regulate the taking of shellfish from contaminated waters and relative to the purification of such shellfish.*

House 793. Bill requiring the vaccination of certain children in private schools.*

House 794. Bill to establish the salaries of the members of the Board of Registration in Pharmacy.*

House 803. Bill relative to appointments to the Board of Registration in Pharmacy.*

House 840. Bill relative to actions for death and injuries resulting in death.*

House 843. Bill relative to the payment of compensation to injured employees under the Workmen's Compensation Law in case of total incapacity.*

House 880. Bill requiring operators of motor vehicles to carry first aid kits or equipment.*

House 883. Bill relative to deaths resulting from wilful, wanton or reckless acts.*

*This Bill not yet printed for public distribution.

RECENT DEATHS

TENNEY—DR. BENJAMIN TENNEY, surgeon, died at his home in Boston, January 18, 1928, aged 64, after an illness of a year.

Dr. Tenney was born at Thetford, Vt., October 6, 1863, and was the son of Rev. Leonard and Malvina (Baker) Tenney. He studied first at Barre (Vt.) Academy. Entering Dartmouth he received his A. B. in 1883, and his A. M. in 1887. He then took the medical course at the Harvard Medical School, from which he was graduated in 1892. He began practice in Boston that same year, and became instructor in anatomy at the Harvard Medical School, a post he held for four years. He was physician to out-patients at the Boston City Hospital for two years, and following his resignation he was appointed surgeon to out-patients at the same hospital, where he remained for six months. Later he became surgeon at the Boston Dispensary and the Berkeley Infirmary.

He was a member of the American Medical Association, the Massachusetts Medical Society, the American Urological Association and the American College of Surgeons, and had been a member of the University and Engineers' Clubs.

The surviving members of his family are his wife, who was Alice Parker, whom he married at Hanover, N. H., November 8, 1893; a son, Dr. Benjamin Tenney, Jr., of Boston, and a daughter, Mrs. Alden S. Foss, also of Boston.

EATON—DR. HAROLD BURNEY EATON, a Fellow of the Massachusetts Medical Society, died after a long illness, at his home in Boston, January 18, 1928, at the age of 41.

Dr. Eaton was born June 21, 1886, the son of Harold B. and Annie Burney Eaton. He was educated at the Fitchburg High School and at Milton Academy, and attended Harvard for one year from 1903 to 1904. He then moved to Germany with his family and studied at the universities at Giessen, Frankfort, Munich and Geneva. Returning to this country he entered the Harvard Medical School, receiving his M. D. degree in 1915.

For a time he was voluntary assistant to Dr. Joseph W. Courtney in the neurological clinic at Carney Hospital, after which he was assistant neurologist at the Massachusetts General Hospital, and was the founder and for a time chief of the neurological clinic at the Boston Dispensary. He also was at the Boston Psychopathic Hospital, where he made a special study of the neurological treatment of World War veterans.

He was a member of the American Psychiatric Association and of the New England Society of Psychiatry.

Dr. Eaton had an extended war record. When the United States entered the World War he was commissioned a first lieutenant in the medical corps on June 7, 1917, and subsequently promoted to a captaincy on November 14, 1910. He served with Base Hospital No. 18 with the Fifteenth Field Artillery, and was with the Second Engineers and the Ninth Infantry. On October 3, 1918, he was wounded and was discharged from the service in February of the following year. He was in the engagements at Chateau Thierry, the Marne-Aisne, St. Mihiel and Champagne offenses, and was decorated with the Croix de Guerre on July 19, 1918, for distinguished service.

Dr. Eaton is survived by his wife, who was Miss Margaret Sinclair of California.

CLEWLEY—DR. WILLIAM HALE CLEWLEY, a member of the staff of the Massachusetts Homeopathic Hospital, died at his home in Woburn, January 14, 1927, of appendicitis, at the age of thirty-two.

He was born in Woburn, August 25, 1895, the son of Herbert Bishop Clewley and Mabel Ellis Clewley. He prepared for college at Phillips Exeter Academy, and, after having been graduated from Yale, got his degree from the Boston University Medical School in 1919. He was a member of the Army Medical Corps during the war and afterwards was in the reserve. He served his interneship at the Newton Hospital. He was married in 1920 to Miss Margaret Ballard of Philadelphia, who survives with two children. He was a member of the Massachusetts Medical Society, having joined in 1927, the College of Surgeons, the Towanda of Woburn and the Althea Club of Boston. He had a Boston office.

CORRESPONDENCE

EXPERIENCE WITH MALPRACTICE INSURANCE

Editor, Boston Medical and Surgical Journal:

My recent experience in a malpractice suit brought by a patient who claimed to have been burned by an electric baker, demonstrated to me the excellent service rendered by the United States Fidelity and Casualty Company. The case was tried here in Boston, with a Suffolk County jury by Henry V. Cunningham and a decision for the defendant resulted.

Yours very truly,

A. G. HOWARD.

636 Beacon street.

A METHOD EMPLOYED BY MR. E. JOCELYN SWAN

January 10, 1928.

Editor, Boston Medical and Surgical Journal:

In the discussion of Dr. Chute's paper: "The Desirability of a Second Removal of the Prostate in Certain Cases of Carcinoma" (B. M. AND S. J., 197:26, page 1209, December 29, 1927), mention was made by Dr. Cunningham of the better results sometimes obtained by simple suprapubic drainage and a permanent fistula. Two years ago, at the London Cancer Hospital, I was impressed by a simple procedure demonstrated by Mr. E. Jocelyn Swan. The bladder was punctured with a large trocar and through this was inserted a Pezzer catheter. One patient was exhibited who had worn such a catheter, while doing his usual work for three years, in perfect comfort, in perfect control of the emptying of the bladder, and with no leakage around the catheter. The patient had solved the problem of aftercare by removal of the catheter about once a month, and the insertion of a new one by means of a meat skewer.

FRED E. CLOW.

A LAYMAN'S VIEW OF RADIUM

Editor, Boston Medical and Surgical Journal:

Dear Sir:

Some articles that I have seen in the medical journals in regard to the use of radium seem to me very misleading because they give only the favorable side of its effects. Little is said of the untoward after-effects, or of the cases that have not been successful. I believe, however, that a number of doctors who get these patients later on and see the effects of its use are not expressing themselves with much enthusiasm in recent medical conferences. I am speaking especially of radium treatment for small fibroid tumors, not of the treatment of cancer. It might be well for the surgeons who do not take the trouble to follow up all these cases to look into them more thoroughly and to think twice before giving radium for minor troubles. We all know the disastrous effects of X-ray and radium in the early experiments, both on the surgeons giving it and on the patients. The X-ray and radium both have obvious advantages over an operation in that the patient does not have to stay so long in bed, but they have many disadvantages.

I could tell of a number of cases where patients have been burned or where radium has produced peritonitis. I know of one woman who completely lost the use of her legs for a time, and of others whose minds and personalities have been affected through the effect of radium on ductless glands. Since so little is known as yet of this subject I think doctors should be more careful in giving radium where it may affect ductless glands.

The end results of the use of radium do not always come to light because women who have had radium do not wish it known. Moreover, it is difficult to get at the truth, for surgeons explain little to their patients and stick together like fly paper. Why not give the patient a show and let her understand her case? The surgeons can fool some of their patients some of the time but they cannot fool all of their patients all of the time.

Here is a case that is, I believe, not altogether unusual. There are more like it than is perhaps known. A woman in the forties, well and strong, had had more or less vaginal bleeding for several months. She went to a hospital for examination and curetting under ether. She was given radium by another surgeon who was called in, without asking her consent or that of any member of her family. Nor were the possible effects explained. The record of her case reads: "Probably a very small fibroid tumor, no cancer." All bleeding stopped at once. The surgeon was satisfied. She left the hospital in a few days and was sent off traveling. After a few more days the patient found herself smashed as completely as if a pottery vase had been thrown on a stone pavement. It was impossible for her to sleep though she had been an exceptionally good sleeper before. She suffered constant pain, mostly in her back, although she had never had a backache in her life. She became subject to hysterical crying spells. Her head and eyes gave her much trouble. Various medicines were given without success. After about four months a metabolism test was taken and she was found to be minus twenty-eight. Thyroid was then given in somewhat large doses, which helped her head to some extent. Her legs then gave out and for a time she was only able to crawl round. Beside other unpleasant symptoms, all her teeth became loose. Then an arthritis set in. Her horror of seeing herself go to pieces so rapidly, although in the past an especially well-balanced person, was so great that she felt she would end in an insane asylum or commit suicide.

After a year or so her head got better, but the constant pain in her back persisted as well as the hysterical crying and sleeplessness. Two psychiatrists were called in, but both declared it was not a case for them. As her personality seemed to be somewhat changed, injections of a mixture of glands were resorted to, but without success.

For more than two years she struggled around in a very unhappy state of mind, for her work had to be given up, and her life was quite upset. "Take the bit in your teeth and keep going," said one doctor, "and you will come out all right in time." From last accounts, she is pulling out of this condition somewhat, but is still far from well. Was it worth while to make her suffer to this extent and to give her radium under the existing circumstances? It seems hardly right to have done so without her consent or her family's, and with no explanation. Several doctors think it was quite unnecessary, and certainly the patient does.

ISABEL ANDERSON
(MRS. LARZ ANDERSON).

123 Commonwealth Avenue, Boston.

EDITORIAL COMMENT. Mrs. Anderson's letter, calling attention to the unfortunate effects which sometimes follow the use of radium, describes the unusual case and does not take into account the large number of cases of uterine bleeding which are successfully treated by this method of therapy. It is probable that most of the symptoms described in this case, particularly those which appeared some time after the radiation, were due not to the effect of radium in itself, but to the cessation of ovarian function caused by the radium. Mrs. Anderson's communication is not without value, however, for it serves to drive home the lesson that radium is a powerful agent which should be employed only after most careful study of the patient, and only by those who have been thoroughly schooled in its use. Mme. Curie is reported to have said, during her recent visit to this country, that in the next ten years radium, in France and America, would do more harm than good. It may be that she prophesied rightly, for in learning how to apply discoveries, men often make mistakes.

Radium has now been in common use a sufficient length of time to develop in those who have worked with it a knowledge of its dangers and limitations. Yet despite the fact that experienced men are available, we are informed that radium is not infrequently used by men who have no special training in the diseases in which they employ it. The fact that a man has access to a supply of radium, even if he understands the physics of the element, does not constitute him a proper person to administer it in conditions with the management of which he is unfamiliar.

Mrs. Anderson's communication will not deter those who understand the uses of radium from applying it in selected cases, even in those of "small fibroid tumors." Its justification lies in the chance that it may influence some physician to select with greater care the "radium specialist" to whom he refers his next patient.

NEWS ITEMS

HARVARD MEDICAL SCHOOL NEWS—Dr. M. J. Rosenau, Professor of Preventive Medicine at the Harvard Medical School, gave an illustrated lecture on January 12, 1928, in Amphitheatre E at the school. The title of his talk was "A Sanitary Survey of Palestine."

Dr. Rosenau stated that Palestine is a California in miniature and would be just as livable if only a few slight improvements were made. Vaccination is done by a medicine man with a thorn picked up by the roadside. This thorn is dipped into the smallpox pustule and pricked between the thumb and forefinger three times. Disinfection is a thing almost unknown. The water for most purposes is dipped directly from the Dead Sea. Epidemics of cholera and dysentery are fairly common. Privies are unheard of, and typhoid fever is almost endemic. The people think that syphilis is a necessary disease and better to have in this life than the next; as a result it is very prevalent.

The lecture was illustrated by colored slides and novelties which Dr. Rosenau brought back from his six weeks' stay in Palestine last summer.

THE MASSACHUSETTS GENERAL HOSPITAL NEEDS FUNDS—An annual sustaining fund is needed by the Massachusetts General Hospital, and an active canvass will be undertaken to secure $100 subscriptions to be paid each year for the care of patients and scientific research in the clinics and laboratories. This need has been made acute because of the addition of about fifty beds in the Bulfinch Building. The actual cost of supporting a patient in the hospital is about six dollars per day and the amount collected averages much less according to statements which have been published.

With the impressive history of this hospital it is reasonable to expect that future endowments will be forthcoming which will enable it to maintain its position as one of the great teaching hospitals in the country.

SMALLPOX IN MASSACHUSETTS—The epidemic of smallpox in Connecticut is a menace to Massachusetts, as shown by two cases of this disease reported to the State Department of Public Health.

Two residents of Shelburne Falls visited Easthampton, Connecticut, on January 2, and after returning to their homes developed smallpox. One had never been vaccinated and the other not for twenty-one years. All contacts have been vaccinated and are under careful supervision. Only two cases of smallpox in Massachusetts were reported in 1927. We will be fortunate if no others occur this year. It is simply a question of universal vaccination with repetition from time to time.

The usual attempts at discrediting vaccinations are under way at the State House in the bills which have been introduced, and the medical profession must carry the load of a campaign of education. Doctors must teach the people that by vaccination immunity to a communicable disease is brought about, and that this simple prophylactic treatment can not only prevent illness and death but is an important economic measure. An epidemic of smallpox is an expensive burden on a municipality both in its control and its effect on business.

Connecticut is continuing as a menace to Massachusetts because the epidemic of smallpox seems to be more serious with the later reports of over a hundred cases.

BOSTON SURGEON'S RESEARCH PRAISED—Dr. Lester R. Whitaker, a Boston surgeon, who is at the Strong Memorial Hospital at Rochester, N. Y., is continuing a line of research work bearing upon gallstones. Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*, writing in the current issue of the *Popular Science Monthly*, says that "Whitaker of Boston seems to have shown that stasis, or lack of contraction of the gall-bladder, is significant in the formation of gallstones, and a Japanese investigator has submitted evidence that absence of certain vitamins from the diet may be significant in stone formation in the gall-bladder, kidneys, or elsewhere in the body."

Dr. Whitaker, in an article published some months since in the *Journal of the American Medical Association*, concluded that gallstones can be produced experimentally in animals by interference with the normal mechanism for filling and emptying the gall-bladder, resulting in stasis, and overconcentration of bile.

"It is possible," he continues, "that stones are produced in human beings by dietetic habits resulting in stasis. It is also possible that debilitating diseases, by reducing the muscle tonus of the gall-bladder, favor stasis and the formation of stones."

The "tonus" of the muscle referred to is the peculiar elasticity characteristic of healthy tissue.

"Stones," Dr. Whitaker continues, "can be forced out of the gall-bladder in experimental animals by the giving of fat. It is probable that the same effect can be produced in human beings by the same means, provided the stones are not too large or the disease has not progressed far enough to render the musculature of the gall-bladder ineffective."—*Boston Herald*.

BLAME DOCTORS FOR DRUG TRAFFIC IN RHODE ISLAND—Careless dispensing of narcotic drugs by certain physicians, rather than the activity of drug pedlers, has created a dangerous narcotic

situation in the State, according to the annual report of the Rhode Island Narcotic Board submitted to the Senate January 5, recommending stricter narcotic drug laws and an increased appropriation for enforcement. A law permitting seizure of vehicles used in illegal transportation of narcotics is requested.

The board states it has found lax enforcement throughout the State, and recommends periodic investigations of physicians' and druggists' records. Violations of law were found in 83 drug stores.—*Boston Herald.*

OUTLINES BILL ON PASTEURIZATION — Dr. George H. Bigelow, Commissioner of Public Health, at the milk inspectors' meeting January 5 in connection with the Massachusetts Farm Bureau Federation meeting at the State armory, outlined the bill he plans to introduce in the coming session of the Legislature, providing for compulsory pasteurization or tuberculosis tests for all milk sold in the State.

He pointed out that the distinctive defect of the bills is in the proposed Section 2, which does not provide for tests in communities of less than 5,000 inhabitants. He declared the making of such tests would be difficult in small towns.

The bill is said not to be approved by the agricultural organizations, for they are held to believe it will tend to affect the dairyman adversely. Dr. Bigelow favored the bill which the association plans to introduce into the Legislature providing for increased indemnity on condemned cattle.—*Boston Herald.*

WORK PROGRESSING ON NEW HOSPITAL—The main entrance to the new Metropolitan State Hospital, preliminary work on which is under way, is to be on Trapelo road, opposite Forest street, Waltham. Nearly 100 laborers, two steam shovels and several contractors have been on the job nearly three weeks, and satisfactory progress is being made.

Work is proceeding on the construction of roads to the site of the administration building, proceeding from there to the sites of the nurses' home and continued treatment buildings, and ultimately to the other parts of the hospital plot.

It is expected that the administration building, nurses' home and three continued treatment buildings will be completed at about the same time. Work on the foundation of the administration building is already under way. This structure will be of brick, three stories high and, like the other buildings, of fireproof construction. It will be 40 by 110 feet in size. With the foundation well along, it will be possible to continue with work on the structure without interruption all winter.

The nurses' home will house 150 employes. This building will also be three stories high and of brick It will be 60 feet long and will have two wings, each 40 feet wide and 2000 feet long.

Excavating has been under way for some time on ditches for the proper drainage of the hospital plot. One of these will be 3200 feet long and will deflect the course of a brook.

Another important feature of the new Metropolitan State Hospital will be its water system. Storage will be provided by a standpipe 85 feet high and 50 feet in diameter, with a capacity of approximately 1,225,000 gallons. This supply will be used not only for the new hospital, but for the Fernald school as well. The pumping station plan will operate for both hospital and Fernald school in conjunction. The water supply will be provided by the metropolitan system.—*Boston Herald.*

BILLS TO REGISTER CULTISTS IN THE DISTRICT OF COLHMBIA—Bills have been introduced in the Senate and House of Congress to register Chiropractors and Osteopaths in the District of Columbia. Senate bill 2026 and House bill 5763 are the Chiropractic bills and Senate 2364 and House 16 are the Osteopathic bills.

The medical profession of Washington, D. C., expects that the constituents of the members of Congress will use influence against these bills.

Massachusetts is represented on the committee having these bills for consideration in the persons of C. L. Underhill and H. S. Bowler.

If citizens of Massachusetts will write to these Congressmen setting forth the unwisdom of these bills a duty will be discharged.

The physicians in Washington have to depend on the profession outside for they have no representatives in Congress.

UNIVERSITY OF MICHIGAN ESTABLISHES DEPARTMENT OF GRADUATE MEDICINE — The board of regents of the University of Michigan has authorized the establishment at the university of a department of graduate medicine, and has asked Dr. James D. Bruce to undertake its organization.—*Bulletin of the Association of American Medical Colleges.*

YALE UNIVERSITY—Plans are in readiness for the extension of the Anthony N. Brady Memorial Laboratory to consist of a building 180x240 feet and four stories high. It will house the department of pathology, bacteriology and surgery, and teaching facilities for the school of nursing.—*Bulletin of the Association of American Medical Colleges.*

COMPLETION OF THE MILLION DOLLAR ENDOWMENT FUND FOR THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER—The proposal to collect an endowment of $1,000,000 was suggested in the spring of 1925 as a means of insuring an income sufficient to meet the minimum running expenses of the Society. The Society had been in existence for twelve years and during all that time it had been necessary to operate upon a budget which was much too small for the work to be done.

It was recognized that the task was one of the largest, most urgent and most difficult of all organized efforts to conquer a disease, and that the income of the Society was smaller than that of any other national voluntary health organization with which it could be compared.

Today the total of investments, cash and pledges amounts to $1,034,403.42. A firm of chartered accountants has recently certified that all the moneys received have been found to be properly accounted for.

NOTICE

UNITED STATES PUBLIC HEALTH SERVICE

CHRONOLOGICAL LIST OF CHANGES OF DUTIES AND STATIONS OF COMMISSIONED AND OTHER OFFICERS OF THE UNITED STATES PUBLIC HEALTH SERVICE

JANUARY 11, 1928

Surgeon B. S. Warren. Directed to proceed from Baltimore, Md., to Charleston, S. C., to attend conference with Coast Guard officer relative to the enforcement of Quarantine Regulations, reporting to the Bureau prior to proceeding to Charleston. January 4, 1928.

A. A. Surgeon C. W. d'Alemberte. Directed to proceed from Pensacola, Fla., to New York, N. Y., to testify in Court in behalf of the United States Shipping Board. January 4, 1928.

Surgeon A. J. McLaughlin. Directed to proceed from St. Louis, Mo., to Chester, Ill., and return, to investigate case of alleged leprosy. January 4, 1928.

Assistant Surgeon F. J. Halpin. Directed to report

to Medical Director, United States Employees Compensation Commission, Washington, D. C., for duty effective January 16, 1928. January 4, 1928.

Assistant Surgeon E. E. Huber. Relieved from duty at United States Employees Compensation Commission, and assigned to duty at the Hygienic Laboratory, Washington, D. C., effective January 16, 1928. January 4, 1928.

Surgeon Joseph Goldberger. Directed to proceed from Washington, D. C., to Milledgeville, Ga., and return, in connection with studies of nutrition being carried on by the Public Health Service. January 6, 1928.

Pharmacist F. S. Goodman. Directed to proceed from Washington, D. C., to Hagerstown, Md., and return, to check up property of the Child Hygiene Section at that place. January 6, 1928.

Surgeon J. M. Gillespie. Directed to proceed from Philadelphia, Pa., to Baltimore, Md., to accompany two patients to Marine Hospital No. 1. January 7, 1928.

Surgeon M. F. Haralson. Directed to proceed from Port Arthur, Tex., to New Orleans, La., and return, to accompany patient to Marine Hospital No. 14. January 7, 1928.

Senior Surgeon M. H. Foster. Directed to attend meeting of the American Medical Mid-Winter Conference to be held in Chicago on February 6-7, 1928. January 9, 1928.

Surgeon W. H. Frost. Directed to proceed from Baltimore, Md., to Washington, D. C., and return, in connection with stream pollution studies. January 9, 1928.

Associate Sanitary Engineer Leonard Greenburg. Directed to proceed from New Haven, Conn., to Pittsburgh, Pa., and return, in connection with industrial hygiene investigations being carried on by the Public Health Service. January 9, 1928.

Assistant Surgeon L. R. White. Relieved from duty Ellis Island, N. Y., and assigned to duty at Marine Hospital No. 70, 67 Hudson Street, New York, N. Y. January 10, 1928.

P. A. Surgeon M. V. Veldee. Directed to proceed from Cincinnati, Ohio, to Chicago, Ill., and return, to serve as recorder on board to examine candidates to determine their eligibility for commission as Assistant Surgeon in the Regular Corps of the United States Public Health Service, on February 6, 1928. January 10, 1928.

Assistant Surgeon A. S. Irving. Relieved from duty at New York, N. Y., and assigned to duty at Washington, D. C., with the United States Coast Guard. January 10, 1928.

BOARDS CONVENED

Board of medical officers convened to meet at Marine Hospital No. 17, Port Townsend, Washington, at call of chairman to make physical examination of an officer.

Detail for the Board:
Surgeon F. H. McKeon, Chairman,
Surgeon (R) S. A. DeMartini, Member,
A. A. Surgeon O. C. Bishop, Recorder.

Board of medical officers convened to meet at United States Public Health Service Relief Station No. 329, Seattle, Wash., at call of chairman to examine candidate for appointment as temporary ensign in United States Coast Guard.

Detail for the Board:
Surgeon L. D. Fricks,
A. A. Surgeon C. H. Turpin.

Boards of officers convened to meet at the following-named places February 6, 1928, for the purpose of examining candidates to determine their eligibility for commission in the Regular Corps of the Service. January 10, 1928.

Detail for Board—Washington, D. C.
Assistant Surgeon General R. C. Williams, Chairman,
Surgeon J. P. Leake, Member,
Surgeon Grover A. Kempf, Recorder.

Detail for Board—Chicago, Ill.
Sr. Surgeon S. B. Grubbs, Chairman,
Surgeon J. H. Linson, Member,
P. A. Surgeon M. V. Veldee, Recorder.

Detail for Board—San Francisco, Calif.
Sr. Surgeon J. C. Perry, Chairman,
Surgeon R. H. Creel, Member,
Surgeon J. F. Worley, Recorder.

Detail for Board—New Orleans, La.
Surgeon W. C. Rucker, Chairman,
Surgeon C. V. Akin, Member,
Assistant Surgeon A. P. Rubino, Recorder.

Official:

H. S. CUMMING, *Surgeon General.*

REPORTS AND NOTICES OF MEETINGS

STAFF MEETING AT THE MASSACHUSETTS GENERAL HOSPITAL

The program of the staff meeting at the Massachusetts General Hospital on Thursday, January 12, included the demonstration of two cases and papers from the Fracture and Orthopaedic Services.

The first case was presented by Dr. L. F. Cooper of the West Medical Service. The patient was a boy of 13 in whom a subdiaphragmatic abscess was suspected. All his symptoms followed a furuncle of the face which occurred about five weeks before entrance. In the discussion of this case the occasional occurrence of perinephritic suppuration following furuncles was emphasized.

The second case was presented by Dr. George Saunders of the East Surgical Service. The patient was a boy of 13 years, with probable old tuberculosis of the right hip. A hard, smooth, tender mass was felt in the lower abdomen rising as high as the umbilicus. This mass could be felt by rectum. Biopsy was performed, which showed merely inflammatory tissue. In the discussion, Dr. Allison suggested another biopsy to determine, if possible, whether the mass were tuberculous.

Fracture Service. Dr. Daniel F. Jones outlined the work of the Fracture Service, established in 1917, and stated that the end results of 500 cases had recently been compiled and would shortly be published. In the discussion, Dr. Lincoln Davis called attention to the debt owed by the Hospital to Dr. Charles L. Scudder for his activities in this field.

The first paper of the evening was given by Dr. Arthur W. Allen on "Fascial Transplant in Fracture Treatment." Dr. Allen discussed the advantages of transplanted autogenous fascia in the repair of certain fractures and dislocations, giving them briefly as follows: it does not create a foreign body reaction; it is more easily handled; it has a greater tensile strength than other materials that have been advocated; and early motion may be employed after its use. It has been successfully used at the Massachusetts General Hospital in 3 cases of anterior dislocation of the inner end of the clavicle, in 7 cases of fracture of the patella, 3 cases of fracture of the olecranon, and one case of recurrent anterior dislocation of the head of the radius. There has been no infection following the procedure in any case and no disability resulting from the removal of the necessary amount of fascia lata. No special instruments are necessary, and the technique is simple. A detailed

description of the technique in treatment of the cases described above was given. After treatment of a fracture of the patella by this method, no splint or plaster of Paris dressing is used; gentle, active massage is started 48 hours after the operation; weight bearing with crutches is allowed at the end of four weeks. In the last case of fracture of the olecranon treated by this method, full motion was regained in 6 weeks after the operation. This result was also obtained in a case of recurrent anterior dislocation of the head of the radius.

The method and results of this treatment were shown in numerous illustrations.

Orthopaedic Service. The second paper was presented by Dr. Nathaniel Allison on "Diagnosis in Joint Disease." Dr. Allison pointed out that accurate diagnosis of the different diseases of the joints is of paramount importance, since treatment of the different types varies so greatly. In order to make accurate diagnosis in arthritis, every means of securing clinical data is necessary: physical examination, blood study, allergic reaction, x-ray study, and the examination of fluid from the joint, chemically and bacteriologically, as well as microscopic study of tissue removed at biopsy, and animal inoculation. In addition, recent work has shown the importance of routine throat and blood culture study, as well as removal of enlarged lymph nodes for smear and culture.

An illustration of the importance of such methods is shown in the diagnosis of tuberculosis. This common form of arthritis is thought to be easy of diagnosis. Studies on the Orthopaedic Service of the Massachusetts General Hospital, however, have shown that diagnosis of tuberculosis based on history, physical examination and x-ray alone, is correct in less than 70 per cent. of the cases, as proved by subsequent study.

In pus infections of the joints, staphylococcus, streptococcus, gonococcus, pneumococcus, etc., the importance of early and accurate diagnosis cannot be overstressed, because upon it depends the future integrity of the joint. The large group of arthritides of uncertain origin deserves especial attention. Joint diseases now variously called rheumatoid arthritis, atrophic arthritis, rheumatism, chronic infectious arthritis, etc., may be due to a definite causative factor. Histologically the changes in the bone are so characteristic that it seems plausible to assume that a constant factor is at work. The work of Small, Birkaug and Baer in isolating streptococci from the blood and the lymph glands of patients with chronic arthritis is most important.

Dr. Coonse described work that is being carried out on the Orthopaedic Service of the Massachusetts General Hospital in an attempt to isolate the causative organism. Seven cases, varying in age of the patient from 21 to 5 years, have been studied. The duration of the disease ranged from 4 weeks to 3½ years. In the case of polyarthritis of 4 weeks' duration, a pure culture of streptococcus was secured from the blood; in all other cases blood cultures were negative. In 5 of the 7 cases streptococci, either of haemolytic or of viridans type, were secured from the throat cultures; in 2 of the 6 cases where glands were removed pure cultures of streptococcus viridans were secured. In one case only was sufficient joint fluid obtained for study: both bacteriologically and chemically this fluid was negative.

Dr. Lawson of the department of bacteriology, continuing the discussion, said: "Using the strains of streptococci which we have isolated from the patients described by Dr. Coonse, we have tried to compare them with the strains isolated by Small and Birkhaug. As yet the work is in its incipiency, and the results are too meagre to allow more than a preliminary report. We have been able to produce in rabbits a transient arthritis limited mainly to the joints of the hind leg. Subsequent work is being planned to determine whether the lesions produced by this organism or its toxic products simulate in any way those present in the type of arthritis under consideration. We also hope to be able to produce cardiac lesions simulating those of rheumatic fever and subacute bacterial endocarditis by the use of these organisms, as well as to probe whether in this special class of arthritis cases the joint condition is due to a toxin or whether it is an allergic manifestation in a previously sensitised tissue."

At the next Staff Meeting, on Thursday, February 9, Dr. Joseph A. Capps of Chicago, an alumnus of the Massachusetts General Hospital, Professor of Medicine at Rush Medical College and Chief of Medical Staff of Cook County Hospital, will speak on "Pain in the Pleura, Peritoneum and Pericardium."

CONFERENCE ON CANCER CONTROL AT PONDVILLE

DECEMBER 15, 1927

The active interest shown in the possibility of cancer control was abundant evidence that it was not alone a desire to enjoy the country-side on a fine winter day which brought sixty busy physicians, clinic social workers and non-medical members of the cancer education committees from all parts of the State to the first conference of the physicians and non-medical people who are working on the cancer control program of the State Department of Public Health. The conference was held at the Pondville Hospital, December 15th from 10:30 in the morning to 4:00 in the afternoon.

DR. BIGELOW OPENS THE CONFERENCE

In opening the conference Dr. Bigelow frankly expressed his surprise that the number of patients discharged alive is so much larger than of those who have died. The report of the Superintendent of the Hospital shows that of 83 discharged cases in the first six months, 46 showed improvement, 20 showed no improvement, while 17 had died.

Dr. Bigelow stated "1200 persons die every year from Cancer in Massachusetts who could be saved if reached in time. It is the delay, averaging 13 months from the time of the first symptoms to the visit to the clinic, that is killing cancer patients." He pleaded for greater resourcefulness in getting these patients into line for treatment.

There are now six clinics,—in Newton, Springfield, Lynn, Lowell and at the Hospital at Pondville. Each one except the last has been formed by a group of physicians, chosen by the local or district medical society, usually in response to a request from the Department. In each of the clinic cities a committee of public-spirited citizens has been appointed by the medical committee to assume responsibility for the education of the public in the facts of early cancer and for assistance in solving social problems.

Of the 1278 persons who visited the clinics up to December 1st 287 (approximately 20%) were found to have cancer or a suspicion of cancer. These patients came to the clinics for various reasons, 68% of them stating that they came because they read about it in the newspapers. The newspapers in the free publicity they have given in the campaign have brought in more patients to the clinics than all the doctors, visiting nurses, welfare workers and other public and private agencies combined.

STATISTICAL STUDIES

Dr. Herbert L. Lombard, as a result of statistical studies embracing a period of two and one-half years, stated his conclusion that we are today faced by a distinct challenge to make use of existing knowledge,

rather than to focus our entire attention on some new and striking discovery.

In expressing some of the reasons for high cancer rates in this state and in certain localities he stated that so-called cancer "streets" and cancer "houses" have been eliminated from the picture. Localized cancer prevalence can for the most part be traced to older age grouping or unusual sex or nationality distribution. After adjusting death rates to such factors there remains a slight difference in accuracy of diagnosis in favor of the larger communities.

A new contribution to the knowledge of cancer which has resulted from these studies is the fact that the population in which the percentage of the foreign born in large show higher death rates than those in which the native-born are present in greater proportion. It will require further study to determine which ones among the race groups are chiefly responsible for this fact, but in general the northern European races have unusually high cancer death rates while the natives of southern Europe have lower rates. Dr. Lombard could give no reason for the higher death rates among certain races.

EDUCATIONAL COMMITTEES

Dr. Mary R. Lakeman mentioned the valuable work which is being done by the non-medical committees. The committees usually divide themselves into two or three sub-committees—one to take charge of general education, arranging for speakers, group meetings, circulation of literature, etc.; another providing for newspaper publicity and making it their special object to announce clinic hours; a third establishing the relations between the social worker of the clinic and other social agencies of the city and giving aid and support to the social worker.

A WORD FROM THE MEDICAL STAFF

Dr. Ernest M. Daland, Chief of the Hospital staff, cited figures on nearly 500 cancer cases in New York that had been followed for periods up to 12 years. Of cancer of the face, 80 per cent. recovered and had no recurrence of the trouble. Of lip cancer, 40 per cent. had a like experience. Small proportions of recovery resulted from operations on the breast and other organs, down to 3 per cent. recovery from stomach cancer and no recoveries from cancer of the liver, larynx and pancreas.

"We have got to diagnose cancer of the breast early enough to bring the rate of recovery from 12 per cent. to the 75 per cent. that has been shown possible under the most favorable conditions," he said.

"We have got to raise the rate of successful operations in cancer of the uterus from 12 per cent. to the 45 per cent. that is secured from early treatment under the most favorable conditions."

Dr. Isaac Gerber stressed the importance of determining whether or not metastases have occurred before operating. In his judgment radical operation in cancer should never be undertaken if remote metastases have occurred and every effort is warranted through the use of x-ray or other means to determine whether or not such is the fact.

Dr. Arthur Greenwood brought out the need of treating keratoses in view of the danger of their degeneration into cancer.

Dr. Roger Graves laid especial emphasis on the urgency of attending to every case showing blood in the urine.

Dr. Carl Ernlund pointed out that pain in the upper jaw might mean carcinoma in the antrum.

Dr. Robert B. Greenough, chief of the consulting staff, reminded his listeners that surgery is still the procedure of greatest value in the largest number of cases even in this day when treatment by radiation has advanced by such strides. He warned against inefficient treatment of even simple wounds in old people often given through failure to consider the frequent occurrence of malignancy in advanced years.

THE AFTERNOON SESSION

After a good dinner which suggested the advantages of a hospital site in a duck farming region the physicians gathered for a clinic in which cases of exceptional interest were shown and discussed.

Cases in which palliation has been given, even where the disease is incurable were shown as well as patients who had a good chance of cure by the treatment given.

In the meantime those who wished to see the Hospital and its equipment found, in the words of an interested journalist, "rooms with lead doors and barium plaster, protective insulation, not to shield the radiologist and surgeon in the laboratory and operating room, but to protect patients and workers in rooms below and beyond"—"Down in the basement, 1-500 of a pound of radium, kept dissolved in a small beaker of hydrochloric acid, is valued at $63,000. But that is not the only reason it is kept in a heavy safe. Outside the safe an 18-inch brick wall separates the radium from the laboratory where the physicist conducts the emanations of the eery element through a labyrinth of tubes and mercury traps that govern its strange ways and bring it safely to the service of science."

The non-medical members of the group separated into two round tables, for the discussion of public education and of social service as these subjects bear on the cancer problem.

EDUCATIONAL ROUND-TABLE

Mr. Frederic L. Edwards opened the round-table discussion on cancer education, comparing the cancer campaign with that which has brought tuberculosis practically under control in the last 25 years. Mr. Edwards claims that success in the cancer campaign depends largely on the support of the public. He showed a large amount of press material, space for which has been freely offered by the press in Hampden County. The experience in Springfield has been that few clinic patients have come through social workers, welfare organizations or private physicians.

In the course of discussion it was mentioned that persons working in cancer education should have an opportunity to see the clinic in operation. Otherwise they can have but a faint idea of the work going on there.

In the opinion of some members of the group it is important that nurses, social workers, insurance agents and others visiting in the homes be reached as well as all of the organizations of a given community either in special sessions or at their regular meetings.

Other means for reaching the public which were mentioned were trade journals, notices in store windows and slides in motion picture houses.

The possibility was mentioned of reaching mothers during the time of lactation, telling them of the importance of normal lactation and of the necessity for proper repair of lacerations as a means of preventing cancer.

A practical suggestion brought out in this round-table was the distribution of "stuffers", small slips to be enclosed in pay envelopes, with out-going bills, etc.

SOCIAL SERVICE ROUND-TABLE

The social service round-table discussion under the leadership of Miss Ida M. Cannon brought out the fact that the social service phase of the cancer program is so closely related to the educational that it cannot be considered apart. The question of definite effort to bring the clinics to the attention of the

local medical societies was raised and presented for the general discussion. It was felt that nursing organizations should be urged to make greater use of the clinics and Pondville Hospital. The fact was also brought out that patients are coming to clinics as a result of the visits of other patients, friends or relatives.

Other outstanding problems seemed to be the securing of co-operation of the patient and his family in carrying out the treatment recommended, transportation for patients referred to Pondville and other distant hospitals. Individual workers gave their experience in the follow-up of patients, and it was generally agreed that the cancer patient should have first attention but that all patients, cancer or non-cancer, would benefit by the follow-up service patients both of clinic and private physicians.

Reports of the follow-up work should be a contribution to studies of end results. It was urged that the lay committees consider it part of their function to advise and assist the social workers in definite problems which the workers might bring to them.

Records were discussed and emphasis laid on the importance of recognizing the varied social needs of individual patients as well as the assembling of data to be used for further studies. Individual problems were discussed at the meeting of clinic workers with Miss Kelly the evening before and forms for social service records and reports and a follow-up system were worked out by which each worker could keep in touch with patients temporarily discharged or referred to private physicians.

SUMMARY BY DR. BIGELOW

Summing up the discussion of the day Dr. Bigelow stated that the clinics should serve both as a consultative center and as a place in which anyone having the slightest suspicion of cancer might receive skilled diagnosis.

In discussing the relationship between the clinic and the practicing physician there was a general agreement that the best policy is for the clinic to report each diagnosis to the physician mentioned by the patient as the family physician. The clinic social worker may then ascertain through the physician whether or not the patient has reported to him. When no physician is mentioned in response to inquiry the patient may be referred for treatment either to a private physician or to another clinic.

Dr. Bigelow stated that there is no present likelihood of a supply of radium being made available for use outside the Hospital.

The question of single or multiple clinics in a given community has apparently been satisfactorily settled by different methods in various clinic cities. While in general a single clinic is advocated by the Department the plan of separate units is working well in several communities.

A wider distribution of pamphlets and more frequent use of the film "A Fortunate Accident" would undoubtedly increase the effectiveness of the cancer education campaign.

Dr. Bigelow closed the day's program by expressing appreciation of the large attendance and the general participation in the discussion of the day. He announced that it is hoped that a similar conference may be held at some future time, perhaps in Boston.

SOME OF THOSE ATTENDING THE CONFERENCE

Dr. Franklin G. Balch
Dr. George H. Bigelow
Dr. Ernest M. Daland
Prof. William Duane
Dr. Carl Ernlund
Dr. Robert Graves
Dr. Robert B. Greenough
Dr. A. M. Greenwood
Dr. Mary R. Lakeman
Dr. Herbert L. Lombard
Dr. Stephen Rushmore
Boston
Dr. Thomas Almy
Fall River
Dr. F. H. Jennings
Dr. W. F. Sawyer
Dr. F. H. Thompson
Fitchburg
Dr. B. P. Croft
Greenfield
Dr. H. R. Nye
Leominster
Dr. G. Forest Martin
Lowell
Dr. William T. Hopkins
Lynn
Dr. Francis H. Lally
Milford
Dr. Anna C. Palmer
Milton
Dr. Lyman Asa Jones
Dr. John Kellogg
Dr. Abraham Kaplan
Norfolk
Dr. Isaac Gerber
Providence
Dr. John E. Dwyer, Jr.
Dr. Charles Lynch
Springfield
Dr. Arthur K. Drake
Tewksbury
Dr. Benjamin H. Alton
Dr. Kendall Emerson
Dr. M. F. Fallon
Dr. Ernest Hunt
Dr. A. P. LaChance
Dr. E. H. Trowbridge
Worcester
Miss Ida M. Cannon
Mrs. E. A. Codman
Mr. J. C. Hudson
Miss Eleanor E. Kelly
Mr. Robert W. Kelso
Mr. Louis M. Lyons
Boston
Mrs. J. H. Sherburne
Brookline
Mrs. F. H. Jennings
Fitchburg
Mrs. E. B. Carney
Mrs. J. A. Gage
Lowell
Mrs. Dorothy A. Oates
Lynn
Miss Elizabeth Wheeler
Miss Elizabeth Ross
Newton
Miss V. M. Beauregard
Mrs. Lyman Asa Jones
Norfolk
Mrs. J. A. Gookin
Roxbury
Mrs. Edward Broadhurst
Miss Alice M. Drapeau
Mr. Frederic L. Edwards
Mrs. R. H. Seelye
Springfield
Miss Gertrude Carney
Worcester

THE ANNUAL MEETING OF THE BOSTON MEDICAL LIBRARY

The annual meeting of the Boston Medical Library was held at the Library on Tuesday evening, January 17th, 1928.

The Treasurer, Dr. Wadsworth, read his report and commented on the necessity of increasing the membership of the Library. In order to carry on the work of the Library as it should be carried on the membership should be at least 1500, which is almost double the present membership.

Dr. John W. Farlow, the retiring Librarian, read his report and again called attention to the congested condition of the Library which makes it almost impossible to carry on the work of the organization.

Dr. Bartol expressed the feeling of all those interested in the Library in speaking of Dr. Farlow's resignation when he said, "Our sensations of grief at the passing from active service of the officer of the Library who has done more than seemed possible for any one person to do, are too acute for expression. A formal vote of appreciation to Dr. Farlow for his many years of devoted service to the Library was passed and recorded by the secretary.

It was voted to amend the charter of the corporation broadening its scope by adding the words "and for the promotion and advancement of medical science and medical education." In commenting upon the change in the charter the President said that it had become absolutely imperative that the Library extend the scope of its activities in order to enlarge the institution. The by-laws were amended increasing the membership of the executive committee from nine to eleven members and changing the title of the Assistant Librarian to that of Director.

The following list gives the names of officers elected for the ensuing year:

President—Dr. John W. Bartol.

Vice-Presidents—Dr. William N. Bullard, Dr. Homer Gage, Dr. George G. Sears.

Secretary—Dr. Horace Binney.

Treasurer—Dr. Richard G. Wadsworth.

Librarian—Dr. Charles F. Painter.

Executive Committee—Dr. John W. Cummin, Dr. Lincoln Davis, Dr. William C. Quinby.

Following the business meeting Dr. Richard P. Strong gave a very interesting talk entitled "Medical Observations Relating to Equatorial Africa."

HARVARD MEDICAL SOCIETY MEETING

In contrast to the usual scientific nature of the fortnightly meeting of the Harvard Medical Society, a meeting in a lighter vein was held on January 10, 1928, at the Peter Bent Brigham Hospital. A presentation of cases was followed by two papers, one presented by Dr. Reginald Fitz on "The Modern Young Thing," and the other, entitled, "Who Put the Fox in Foxglove," by Dr. Harvey Cushing. Dr. Sosman presided.

The first case was presented by Dr. Both. The patient, a boy of 12 years of age, came to the hospital for complete study preparatory to extraction of a tooth. His past history gave a story of bleeding from the mucous membranes, the nose or skin on the slightest trauma, from the age of two. He was seen at the Children's Hospital at four years, and at six years of age. When ten years old, a tonsillectomy was done, and transfusion was necessitated to compensate for the severe bleeding. In March, 1927, a splenectomy was done, necessitating transfusions both before and after the operation. Before the splenectomy his red blood count was 3,600,000, white count 12,000, platelet count 30,000. In November, 1927, his red blood count was almost normal, his white count was normal, and his platelet count up to 64,000. He was presented as a case of marked purpura hemorrhagica, showing the beneficial effects which follow splenectomy.

The second case was presented by Dr. Gunderson. The patient, a Syrian girl of 22, married, who has been in this country since 1921, had been the subject of much treatment. Shortly after her arrival in this country she had her appendix removed. Six months later a tonsillectomy was done. In 1924 she also had a nephropexy done. In view of the present findings, these were all apparently mild attacks of intestinal obstruction. Since 1923 she had four severe attacks characterized by severe vomiting and colic, constipation and some diarrhea with blood in the later stages. The first attack was diagnosed as visceroptosis, and exercises and abdominal supports were given for relief. The second time she was operated on and an intussception, reaching down to the ileo-cecal valve was found. This was reduced, no indication for resection being seen. The last attack brought her into the hospital with a palpable mass slightly to the left of the midline. Incision through the old wound showed a second intussusception. Resection and an end to end anastomosis were made. The pathological specimen showed an intussusception of 10 inches in length and a lipoma of the intestinal wall at the distal end which probably was the cause of her attacks. Except for a nephritis for a time her recovery has been uneventful.

In his paper Dr. Fitz asked why the modern young thing is in the limelight. He then pointed out that these new creations are the results of an educational program begun by the parents of 1900. Due to the advantages of new inventions and discoveries the people began to move into the country where, finding leisure time, they turned to sports for recreation. The new trend turned out two types of girls, the flapper and the athletic girl.

The athletic girl is the more easily analyzed. Exemplified by such girls as Eleanor Sears and Helen Wills, this group comprises the more sensible element. The flapper, described by Dr. Fitz as a heady cocktail, presents a different problem. While usually a rather sensible girl fundamentally, she presents three qualities which can be called defects. First, she doesn't weigh enough, generally being much lower than the ideal weight. In a comparative study of the weights of boys and girls it was found that two-thirds of the girls and one-third of the boys were below the ideal weight. This thinness is indicative of malnutrition, which may lead to more trouble. Second, the flapper doesn't wear enough clothes. The average weight of a girl's clothes, including the shoes, is two pounds and the evening dress attire only twelve ounces. This, combined with malnutrition, gives a dangerous susceptibility to disease. Third, the posture of this type is bad. A sort of v-shape is attained, with drooping shoulders. This result is visceroptosis and may lead to dysmenorrhea and other untoward symptoms. The girls showed a subnormal temperature. Thirty-six per cent. of the girls reported fatigue on slight exertion, while only two per cent. of the boys admitted it. Due to minor infections thirty-six per cent. of the girls lost two weeks or more in the past two years, while only eighteen per cent. of the boys lost the same time in the same period. A vicious circle is usually attained in women by their desire for "pep," starting with stimulants like coffee and tea, and leading to the use of alcohol, sedatives, and finally resulting in a nervous breakdown.

The boys, on the other hand, show a desire to be big and robust. After college in their attempt to keep fit they play strenuous games, and one wonders if this condition may not lead to arterio-sclerosis and a dilated heart.

Dr. Cushing in his paper showed that the derivation of the word "foxglove" is still obscure. The part "fox" may be an English translation of the name of the German herbarian, Fuchs; or it was possibly an impure use of the term "folksglove," meaning "fairy's glove," or perhaps an Anglo-Saxon term. The part "glove" probably refers to the glove-like appearance of the plant. The term "digitalis" was concocted by Fuchs because the flowers, like thimbles, were worn on the finger or digits.

The meeting was unusually well attended, and while amusing features were introduced, it was of general interest. After the papers an interesting discussion was led by Drs. Sosman, Cheever and Wolbach.

MASSACHUSETTS MEDICO-LEGAL SOCIETY

There will be a meeting of the Massachusetts Medico-Legal Society February 1 at 2:30 P. M. at the Warren Museum of the Harvard Medical School. Professor Morgan of Harvard, and the President of the Rhode Island Medico-Legal Society will be the speakers.

BOSTON MEDICAL HISTORY CLUB

A meeting will be held on Friday, January 27, 1928, at the Boston Medical Library, at 8:15 P. M.

PROGRAM

1. Art Reference Libraries and Medicine. Mr. Alfred Ela.
2. The Struggle against Latin in the 16th Century. Dr. Edward C. Streeter.
3. The Early Jewish Physicians in America. Dr. Hyman Morrison.

HENRY R. VIETS, *Secretary.*

MASSACHUSETTS TUBERCULOSIS LEAGUE, INC.

The semi-annual meeting of the League will be held at Hotel Statler on Monday, February 6, at 2:30 p. m.

At the luncheon preceding the meeting, Dr. H. E. Kleinschmidt, Supervisor of Medical Service of the National Tuberculosis Association, and Dr. John B.

Hawes, 2nd., President of the Boston Tuberculosis Association will speak on the Early Diagnosis Campaign which has been announced by the National Association for the month of March.

More details about the meeting will appear in the *Health Journal*.

BOSTON CITY HOSPITAL

A staff clinical meeting will be held Saturday, January 28, 1928, at 11 a. m. in the Cheever Surgical Ampitheatre.

A demonstration of cases by members of the Medical and Surgical Staff is scheduled. Discussion of the cases is invited.

This is an open meeting to physicians, medical students and nurses.

JOHN J. DOWLING, *Superintendent.*

BOSTON HEALTH LEAGUE

There will be a meeting of the Boston Health League in Room 500, 14 Beacon Street, Boston, on Monday, January 30, at 3:45 P. M.

Dr. John A. Ceconi, Director of School Hygiene, Boston Public Schools, will speak on "The School Hygiene Program of the Boston Public Schools."

HEALTH EDUCATION MEETING

A meeting on practical experience in health education in schools will be held under the auspices of the Massachusetts Tuberculosis League on February 7th at Hotel Statler, beginning at 9:30 in the morning. Miss Anna W. Johnson, Educational Secretary of the League, will be in charge.

The topic for discussion will be "Health Education in its Relation to the School Curriculum."

The speakers will include Mr. Frank Morris, Superintendent of Schools of Stoughton, who will describe the success of health education in his schools from his standpoint as Superintendent.

Miss Elizabeth H. Sampson, Principal of the Hedge School, Plymouth, will speak on the subject from the standpoint of the Principal.

Miss Mary T. McDermott of the faculty of the State Normal School of Fitchburg, will give the point of view of the training school for teachers in preparing young teachers in the technique of health education.

Miss Edith Haines, R. N., School Nurse of Dracut, will tell of the success in co-ordinating the health education in the schools of her territory with the work of the school nurse.

Miss Julietta Delahanty of William S. Greene School, Fall River, will tell of her work in health education as a classroom teacher.

A special feature of the meeting will be a brief talk by Mr. E. E. Clive, Director of the Copley Theatre and Chairman of the League's Committee on Health Playwriting. Mr. Clive will tell his experience in presenting the subject of health education through the drama.

THE NORFOLK DISTRICT MEDICAL SOCIETY

A regular meeting of the Norfolk District Medical Society will be held in the Roxbury Masonic Temple, 171 Warren Street, Roxbury, Tuesday, January 31, 1928, at 8:15 P. M, Tel. Rox. 6089.

Communication: Some Observations on the Use of the X-ray in Diagnosis and Therapy.

The papers will be presented by Drs. Samuel W. Ellsworth and Frank E. Wheatley. Dr. H. F. R. Watts will open the discussion.

Collation.

FRANK S. CRUICKSHANK, M.D., *Secretary.*
23 Bay State Road, Boston.

ESSEX SOUTH DISTRICT MEDICAL SOCIETY

Annual Meeting Tuesday, May 8, 1928.

Dinner at 6:30, The Tavern, Gloucester, Mass.

Speaker, Dr. Willard C. Rappleye of New Haven, Conn., "Director of Study of Commission on Medical Education."

Subject: "Medical Training in Relation to General Education and Medical Practice."

Lady guests invited.

Dancing to follow the dinner.

RECONSTRUCTION CLINIC

MONTHLY CLINICAL STAFF MEETING OF THE DEPARTMENT OF PHYSICAL THERAPEUTICS

The regular monthly Clinical Staff Meeting of the Department for Physical Therapeutics will be held on Friday, January 27, 1928, at 8 P. M., at 366 Commonwealth Avenue, Boston, Massachusetts.

Following presentation and discussion of clinical cases, application of various modalities for Physical Therapeutics will be demonstrated.

All Physicians, Nurses and Medical Students are cordially invited.

ILLUMINATING ENGINEERING SOCIETY

The third meeting of the New England Section of the Illuminating Engineering Society will be held Friday, January 27, 1928, at 7:45 P. M., at the Engineers' Club, 2 Commonwealth Avenue, Boston, Massachusetts. Subject: "Radiation Therapy". Speakers: Dr. E. R. Berry, Consulting Engineer of the General Electric Company, West Lynn, Massachusetts, and Dr. Edwin T. Wyman of the Children's Hospital, Roxbury, Massachusetts.

The application of ultra-violet rays to the prevention and cure of certain diseases, particularly of rickets, is a problem of direct interest both to the physician and to the illuminating engineer.

Dr. Berry, of the General Electric Company, has been one of the pioneers in the development of clear quartz glass. He has made notable studies on artificial sources of ultra-violet radiation, and he has coöperated closely with physicians (particularly here in Boston) in their studies on the transmission of solar ultra-violet radiation by clear quartz and other special glasses.

Dr. Wyman has recently made an important contribution to radiation therapy by showing therapeutically that in localities as far north as Boston sufficient solar ultra-violet radiation is received during the winter to be effective in the treatment of rickets.

The New England Section, Illuminating Engineering Society, extends to the medical profession of Boston a cordial invitation to attend this meeting and hear addresses by Dr. Berry and Dr. Wyman.

R. B. BROWN, *Secretary.*

THE ANNUAL CONGRESS ON MEDICAL EDUCATION, MEDICAL LICENSURE AND HOSPITALS

This conference will be held in Chicago at the Palmer House, February 6, 7, and 8, 1928. Complete program was published in our issue of January 19, 1928, page 1382.

These meetings are of especial interest to all persons interested in medical education, hospitals and licensure of physicians.

Dr. T. J. O'Brien of the Massachusetts Medical Society has been appointed a delegate.

Dr. B. U. Richards of Pawtucket, R. I., is President of the Federation of State Medical Boards.

SOCIETY MEETINGS

January 26—Meeting of the Association of Boards of Health. Detailed notice appeared on page 1383 of the January 19 issue.

January 27—Boston Medical History Club. Detailed notice appeared on page 1383 of the January 19 issue.

January 27—Illuminating Engineering Society. Detailed notice appears on page 1437, this issue.

January 27—Reconstruction Clinic. For complete notice see page 1437, this issue.

January 28—Boston City Hospital. Complete notice appears on page 1437, this issue.

January, February, March and April, 1928—Last Saturday at 11 A. M. Cheever Amphitheatre, Staff Clinical Meetings at Boston City Hospital.

January 30—Boston Health League. Detailed notice appears on page 1437, this issue.

February 1—Massachusetts Medico-Legal Society. Complete notice appears on page 1436, this issue.

February 6—New England Heart Association. Detailed notice appears page 1383, issue of January 19.

February 6—Meeting of the Massachusetts Tuberculosis League, Inc. Detailed notice appears on page 1436, this issue.

February 7—Health Education Meeting. Complete notice appears on page 1437, this issue.

February 6, 7, and 8—Annual Congress on Medical Education, Medical Licensure, and Hospitals. Complete notice appears on page 1382, issue of January 19.

February 9—Next Staff meeting, Massachusetts General Hospital. Complete notice appears on page 1433, this issue.

DISTRICT MEDICAL SOCIETIES

Essex North District Medical Society

May 2, 1928 (Wednesday)—Annual meeting at Haverhill, 12:30 P. M., at the Haverhill Country Club, Brickett Hill, Gile Street, Haverhill.

May 3, 1928 (Thursday)—Censors meet for examination of candidates at Hotel Bartlett, 95 Main Street, Haverhill, at 2 P. M. Candidates should apply to the Secretary, J. Forrest Burnham, M.D., 567 Haverhill Street, Lawrence, at least one week prior.

Essex South District Medical Society

February 1 (Wednesday)—Council meeting, Boston.

February 8 (Wednesday)—Danvers State Hospital. Clinic at 4 P. M. Buffet supper at 6 P. M., followed by

Dr. Abraham Myerson, "Some Aspects of Mental Hygiene."

Discussion by Drs. W. F. Wood of Hathorne and G. M. Kline of Beverly, 10 minutes each, and from the floor.

March 7 (Wednesday)—Lynn Hospital. Clinic at 5 P. M. Dinner at 7 P. M.

Dr. Henry R. Viets, "The Acute Infections of the Nervous System," with lantern slides and moving pictures.

Discussion by Drs. W. V. McDermott of Salem and J. W. Trask of Lynn, 10 minutes each, and from the floor.

April 11 (Wednesday)—Essex Sanatorium, Middleton. Clinic at 5 P. M. Dinner at 7 P. M.

Dr. Raymond S. Titus, "Obstetrical Emergencies."

Discussion by Drs. J. J. Egan of Gloucester and A. T. Hawes of Lynn, 10 minutes each, and from the floor.

May 3 (Thursday)—Censors meet at Salem Hospital for the examination of candidates at 3:30 P. M. Candidates should apply to the Secretary, Dr. R. E. Stone, Beverly, at least one week prior.

May 8 (Tuesday)—Annual meeting. Detailed notice appears on page 1437, this issue.

Norfolk District Medical Society

January 31—Complete notice appears on page 1437, this issue.

February 29—Roxbury Masonic Temple. Orthopedics in General Practice. Dr. Paul N. Jepson.

March 27—Meeting at the Norwood Hospital. Presentation of paper or cases from members of the District.

May 3—Censors' meeting. Roxbury Masonic Temple, 4 P. M. Applications will be mailed by the Secretary upon request.

May 8—Annual meeting. Details to be announced.

Suffolk District Medical Society

Combined meetings of the Suffolk District Medical Society and the Boston Medical Library will be held at the Boston Medical Library, 8 The Fenway, at 8:15 P. M., as follows:

February 29—Surgical Section. Subject to be announced later.

March 28—Medical Section. "The Use and Misuse of Vaccines." Dr. Hans Zinsser, Dr. Francis M. Rackemann, Dr. Charles H. Lawrence.

April 25—Annual meeting. Election of officers. Paper of the evening to be announced later.

The medical profession is cordially invited to attend these meetings.

Notices of meetings must reach the JOURNAL office on the Friday preceding the date of issue in which they are to appear.

BOOK REVIEWS

The New American Journal of Public Health.

***The American Journal of Public Health*, in the first number of its eighteenth year, goes to its readers in a new format, bound in a bright cover, and with a typography notable for its beauty and legibility. The new magazine is printed on a fine grade of book paper, and is a sewn book, easy to open and easy to hold.**

The standard of sound, scientific, and well-written text of the old journal will be maintained in the new publication.

***The Nation's Health*, which has been acquired by the American Public Health Association, from the Modern Hospital Publishing Company of Chicago, will be merged with the January, 1928, issue of *The American Journal of Public Health*. The name on the cover and title pages will be *The American Journal of Public Health and The Nation's Health*.**

A Treatise on Orthopaedic Surgery. By ROYAL WHITMAN, M.D., M.R.C.S., F.A.C.S. Eighth Edition, Thoroughly Revised. Illustrated with 954 Engravings. Lea & Febiger, Philadelphia, 1927.

The eighth and somewhat enlarged edition of Whitman's "Orthopaedic Surgery" appearing four years after the seventh edition is an evidence of the virility of this standard textbook. It retains the valuable material of the earlier editions and adds illustrated descriptions of several new operations which the author considers of value. Among these are included Campbell's bone block operation for drop foot, Campbell's arthroplasty of the knee joint, MacAusland's arthroplasty of the elbow, Ober's operation for gluteus maximus paralysis and Smith-Petersen's incision and operation for arthrodesis of the sacro iliac joint. Numerous statistical charts add to the value of the reading material and make it an excellent book of reference. The illustrations are clear and copious.

International Clinics. Volume IV., Thirty-seventh series, December, 1927. Published by J. B. Lippincott Co., Philadelphia and London. 309 pages.

The last number of this excellent quarterly contains literature on current subjects under the headings of Travel Clinics, Diagnosis and Treatment, Medicine, Surgery, Medical History, and Post-graduate Study.

From the Travel Clinics the reader obtains a good idea of present day work in some European centers. A lecture on the treatment of prostatic obstructions by Kenneth Walker of England, and an interesting discussion of pneumo-radiography of the kidney by Schilling of Norway are examples.

Under Diagnosis and Treatment, Welch of New York lectures at some length on the treatment of premature systoles. A description of intestinal protozoa by Hegner of Baltimore is well illustrated and gives numerous laboratory methods in detail.

A consideration of high blood pressure by Lintz of Brooklyn is included in the section on Medicine. Brooks of New York lectures on the treatment of the pneumonia patient emphasizing the treatment of the patient as an individual.

In the section on Surgery, Montague of New York gives some observations on cancer of the rectum, and Pugh of New York summarizes the diagnosis and treatment of stricture of the urethra.

The Middle Ages by Oliver of Baltimore gives some interesting Medical History.

Surgical exposure of the root of the neck by Ashhurst of Philadelphia is the subject for post-graduate study.